

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

<b>C Number:</b>	C61994B
<b>Lock Date:</b>	04/09/1992
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	04/28/1994

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>ANIMAL ID:</b> 1	<b>TRT#:</b> 1 <b>DOSE:</b> VEHICLE CONTROL	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 313 <b>HISTO:</b> 867781
<b>OBSERVATIONS</b>			
* Skin	SOA-No Mass	Acanthosis	Minimal
	SOA-No Mass	Inflammation	Chronic Active, Marked
		Inflammation	Chronic Active, Marked
	SOA-No Mass	Ulcer	Marked
		Ulcer	Marked
[ Inflammation TGLS = 1-3,2-4 ]			
[ Inflammation TGLS = 1-3,2-4 ]			
[ Ulcer TGLS = 1-3,2-4 ]			
[ Ulcer TGLS = 1-3,2-4 ]			
<b>PRIMARY CAUSE OF DEATH</b>	-		

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 362
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 867782

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 362
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 867783

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 362
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 867784

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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PRIMARY CAUSE OF DEATH

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-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 362
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 867785

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

<b>ANIMAL ID:</b> 6	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 362
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 867786

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

<b>ANIMAL ID:</b> 7	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 362
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 867787

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

PRIMARY CAUSE OF DEATH

---

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

<b>ANIMAL ID:</b> 8	<b>TRT#:</b> 1 <b>DOSE:</b> VEHICLE CONTROL	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 158 <b>HISTO:</b> 867788
<b>OBSERVATIONS</b>			
* Skin		Inflammation Ulcer	Chronic Active, Marked Marked
[ Inflammation TGLS = 1-3 ]			
[ Ulcer TGLS = 1-3 ]			
<hr/>			
PRIMARY CAUSE OF DEATH	-		

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

<b>ANIMAL ID:</b> 9	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 362
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> 867789

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 10

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867790

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 11

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867791

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 12

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867792

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 13

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 207

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 867793

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**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Acanthosis TGLS = 4-3,5-4,6-5 ]

[ Ulcer TGLS = 4-3,5-4,6-5 ]

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 14

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867794

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 15

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867795

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**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

[ Acanthosis TGLS = 1-3 ]

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PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 16

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867796

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 17

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867797

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**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 18

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867798

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 19

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867799

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 20

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867800

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 21

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867801

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 22

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867802

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 23

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867803

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 24

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867804

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 25

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867805

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 26

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867806

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 27

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867807

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 28

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867808

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 29

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867809

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 30

**TRT#:** 1

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867810

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 31

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867841

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 32

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867842

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 33

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867843

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 34

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867844

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 35

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867845

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Ulcer

Mild

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 36

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867846

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 37

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 139

**DOSE:** MNNG 100/ACETONE

**DISP:** Natural Death

**HISTO:** 867847

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 38

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867848

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 39

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867849

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Acanthosis

Minimal

SOA-No Mass

Ulcer

Mild

[ Acanthosis TGLS = 2-4 ]

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 40

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867850

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 41

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867851

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 42

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 897852

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 43

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867853

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

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**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 44

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867854

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 45

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867855

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 46

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867856

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 47

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867857

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 48

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867858

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 49

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867859

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 50

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867860

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 51

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 224

**DOSE:** MNNG 100/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867861

---

**OBSERVATIONS**

\* Skin

Inflammation

Chronic Active, Moderate

[ Inflammation TGLS = 1-3,2-4 ]

Ulcer

Moderate

[ Ulcer TGLS = 1-3,2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 52

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867862

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 53

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867863

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 54

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867864

---

**OBSERVATIONS**

\* Skin

Inflammation

Chronic Active, Marked

Ulcer

Marked

[ Inflammation TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 55

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867865

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 56

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867866

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

[ Acanthosis TGLS = 2-4 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 57

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867867

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 58

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867868

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 59

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867869

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 60

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867870

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 61

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867901

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 62

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867902

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 63

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867903

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 64

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 314

**DOSE:** MNNG 500/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867904

---

**OBSERVATIONS**

\* Skin

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 65

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 341

**DOSE:** MNNG 500/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867905

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 66

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867906

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Hyperplasia

Mast Cell, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 67

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 58

**DOSE:** MNNG 500/ACETONE

**DISP:** Natural Death

**HISTO:** 867907

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 68

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867908

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

<b>ANIMAL ID:</b> 69	<b>TRT#:</b> 5 <b>DOSE:</b> MNNG 500/ACETONE	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 363 <b>HISTO:</b> 867909
<b>OBSERVATIONS</b> * Skin	SOA-No Mass	Acanthosis	Minimal
<b>PRIMARY CAUSE OF DEATH</b>	-		

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 70

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 176

**DOSE:** MNNG 500/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867910

---

**OBSERVATIONS**

\* Skin

Inflammation

Chronic Active, Marked

Ulcer

Marked

[ Inflammation TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 71

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867911

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 72

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867912

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 73

**TRT#:** 5  
**DOSE:** MNNG 500/ACETONE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 195  
**HISTO:** 867913

**OBSERVATIONS**

* Skin	SOA-No Mass	Inflammation	Chronic Active, Marked
		Inflammation	Chronic Active, Marked
	SOA-Mass	Squamous Cell Carcinoma	
	SOA-No Mass	Ulcer	Marked
		Ulcer	Marked
[ Inflammation TGLS = 1-3,2-4,4-6 ]			
[ Inflammation TGLS = 1-3,2-4,4-6 ]			
[ Squamous Cell Carcinoma TGLS = 3-5 ]			
[ Ulcer TGLS = 1-3,2-4,4-6 ]			
[ Ulcer TGLS = 1-3,2-4,4-6 ]			

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 74

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867914

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 75

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 294

**DOSE:** MNNG 500/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867915

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Marked

Ulcer

Marked

[ Inflammation TGLS = 1-3,2-4 ]

[ Inflammation TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 76

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867916

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-3,2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 77

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867917

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 78

**TRT#:** 5  
**DOSE:** MNNG 500/ACETONE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 302  
**HISTO:** 867918

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation  
Ulcer  
Ulcer

Moderate  
Chronic Active, Marked  
Marked  
Marked

[ Acanthosis TGLS = 3-5 ]

[ Ulcer TGLS = 4-6,2-4 ]

[ Ulcer TGLS = 4-6,2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL1-3, NOT APPARENT ON MICRO

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 79

**TRT#:** 5  
**DOSE:** MNNG 500/ACETONE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 238  
**HISTO:** 867919

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Mild

SOA-No Mass

Ulcer

Marked

[ Acanthosis TGLS = 3-5,2-4 ]

[ Acanthosis TGLS = 3-5,2-4 ]

[ Inflammation TGLS = 2-4 ]

[ Inflammation TGLS = 2-4 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 80

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 259

**DOSE:** MNNG 500/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867820

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 81

**TRT#:** 5  
**DOSE:** MNNG 500/ACETONE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 224  
**HISTO:** 867921

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

Ulcer

Marked

[ Ulcer TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 82

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 357

**DOSE:** MNNG 500/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 897922

---

**OBSERVATIONS**

\* Skin

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 83

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867923

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

[ Acanthosis TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 84

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867924

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 85

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867925

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Ulcer

Mild

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 86

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867926

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 87

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867927

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Ulcer

Mild

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 88

**TRT#:** 5  
**DOSE:** MNNG 500/ACETONE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 175  
**HISTO:** 867928

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation  
Inflammation  
Ulcer

Moderate  
Chronic Active, Marked  
Chronic Active, Moderate  
Moderate

[ Acanthosis TGLS = 1-3 ]

[ Inflammation TGLS = 1-3,2-4,3-5 ]

[ Inflammation TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 2-4,3-5 ]

---

PRIMARY CAUSE OF DEATH

---

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 89

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 257

**DOSE:** MNNG 500/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867929

---

**OBSERVATIONS**

\* Skin

Inflammation

Chronic Active, Marked

Ulcer

Marked

[ Inflammation TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 90

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867930

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 91

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867961

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 92

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 175

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867962

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

Ulcer

Marked

[ Acanthosis TGLS = 2-4 ]

[ Inflammation TGLS = 1-3,3-5,4-6 ]

[ Inflammation TGLS = 1-3,3-5,4-6 ]

[ Ulcer TGLS = 1-3,3-5,4-6 ]

[ Ulcer TGLS = 1-3,3-5,4-6 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

<b>ANIMAL ID:</b> 93	<b>TRT#:</b> 7 <b>DOSE:</b> MNNG1000/ACETONE	<b>SEX:</b> Male <b>DISP:</b> Moribund Sacrifice	<b>DAY ON TEST:</b> 292 <b>HISTO:</b> 867963
<b>OBSERVATIONS</b>			
* Skin	SOA-Mass SOA-Mass	Squamous Cell Carcinoma Squamous Cell Papilloma	Multiple
[ Squamous Cell Carcinoma TGLS = 1-3,2-4,4-5 ]			
[ Squamous Cell Papilloma TGLS = 3-6 ]			
<hr/>			
PRIMARY CAUSE OF DEATH	-		

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 94

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 175

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867964

**OBSERVATIONS**

\* Skin

Subcut Tiss  
SOA-No Mass

Acanthosis  
Infiltration Cellular  
Inflammation  
Inflammation

Marked  
Mixed Cell, Marked  
Chronic Active, Moderate  
Chronic Active, Moderate  
Moderate  
Moderate

SOA-No Mass

Ulcer  
Ulcer

[ Acanthosis TGLS = 2-4 ]

[ Infiltration Cellular TGLS = 3-3 ]

[ Ulcer TGLS = 1-3,4-6 ]

[ Ulcer TGLS = 1-3,4-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 95

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 292

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867965

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 96

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 189

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867966

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Marked

Ulcer

Marked

[ Acanthosis TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 3-5,4-6,5-7 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

Animal Note: TGL6-8, NOT TRUE ALOPECIA, HAIR SHAFTS PRESENT

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 97

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867967

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 98

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 195

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867968

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Carcinoma

SOA-No Mass

Ulcer

Marked

Ulcer

Moderate

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Ulcer TGLS = 2-4,3-5,4-6 ]

[ Ulcer TGLS = 2-4,3-5,4-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 99

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867969

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 100

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867970

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Acanthosis

Moderate

[ Acanthosis TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 101

**TRT#:** 7  
**DOSE:** MNNG1000/ACETONE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 230  
**HISTO:** 867971

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis  
Inflammation  
Ulcer

Moderate  
Chronic Active, Moderate  
Marked

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 102

**TRT#:** 7  
**DOSE:** MNNG1000/ACETONE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 299  
**HISTO:** 867972

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
  
SOA-No Mass

Acanthosis  
Inflammation  
Inflammation  
Ulcer  
Ulcer

Moderate  
Chronic Active, Moderate  
Chronic Active, Moderate  
Moderate  
Moderate

[ Ulcer TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 103

**TRT#:** 7  
**DOSE:** MNNG1000/ACETONE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 207  
**HISTO:** 867973

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis  
Inflammation  
Inflammation  
Squamous Cell Carcinoma

Moderate  
Chronic Active, Mild  
Chronic Active, Moderate

[ Acanthosis TGLS = 2-4 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 104

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 236

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867974

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 3-4 ]

[ Ulcer TGLS = 1-5,2-3 ]

[ Ulcer TGLS = 1-5,2-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 105

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 175

**DOSE:** MNNG1000/ACETONE

**DISP:** Natural Death

**HISTO:** 867975

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 106

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867976

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 107

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 335

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867977

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 108

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 280

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867978

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 109

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 306

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867979

---

**OBSERVATIONS**

\* Skin

Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 110

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 179

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867980

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 111

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867981

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 112

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867982

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 113

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867983

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 114

**TRT#:** 7  
**DOSE:** MNNG1000/ACETONE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 215  
**HISTO:** 867984

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Inflammation  
Ulcer

Chronic Active, Marked  
Marked

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 115

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 271

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867985

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass

Squamous Cell Carcinoma

[ Sarcoma TGLS = 2-4 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 116

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 187

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867986

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 117

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 175

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867987

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

[ Acanthosis TGLS = 2-2 ]

[ Sarcoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 118

**TRT#:** 7  
**DOSE:** MNNG1000/ACETONE

**SEX:** Male  
**DISP:** Natural Death

**DAY ON TEST:** 113  
**HISTO:** 867988

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation  
Inflammation  
Ulcer

Moderate  
Chronic Active, Mild  
Chronic Active, Moderate  
Marked

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 119

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 214

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867989

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

SOA-No Mass

Ulcer

Moderate

Ulcer

Moderate

[ Sarcoma TGLS = 1-5 ]

[ Ulcer TGLS = 2-2,3-4,4-3 ]

[ Ulcer TGLS = 2-2,3-4,4-3 ]

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-4, MASS IS ACTUALLY ULCER

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 120

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867990

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 121

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 195

**DOSE:** TPA 5 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868021

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Acanthosis TGLS = 3-5 ]

[ Ulcer TGLS = 1-3,2-4,4-6 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 122

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 320

**DOSE:** TPA 5 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868022

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4,3-5,4-6,5-7 ]

[ Ulcer TGLS = 2-4,3-5,4-6,5-7 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 123

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868023

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 124

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 63

**DOSE:** TPA 5 COMPLETE

**DISP:** Natural Death

**HISTO:** 868024

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 125

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868025

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 126

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 357

**DOSE:** TPA 5 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868026

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Papilloma

SOA-No Mass

Ulcer

Moderate

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 127

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868027

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 128

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 257

**DOSE:** TPA 5 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868028

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

Ulcer

Moderate

[ Ulcer TGLS = 1-4,2-3 ]

[ Ulcer TGLS = 1-4,2-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 129

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868029

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 130

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 5

**DOSE:** TPA 5 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868030

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 131

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868031

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-3,2-4 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 132

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868032

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 133

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868033

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 134

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868034

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 135

**TRT#:** 9  
**DOSE:** TPA 5 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 266  
**HISTO:** 868035

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Squamous Cell Carcinoma

Mild  
Moderate  
Chronic Active, Mild

[ Acanthosis TGLS = 3-2,2-4 ]

[ Acanthosis TGLS = 3-2,2-4 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH** -

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 136

**TRT#:** 9  
**DOSE:** TPA 5 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 295  
**HISTO:** 868036

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis  
Inflammation  
Ulcer

Mild  
Chronic Active, Moderate  
Moderate

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 137

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868037

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 138

**TRT#:** 9  
**DOSE:** TPA 5 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 295  
**HISTO:** 868038

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation  
Ulcer

Mild  
Chronic Active, Mild  
Moderate

[ Acanthosis TGLS = 2-4 ]

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 139

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868039

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 140

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868040

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-Mass

Squamous Cell Papilloma

[ Acanthosis TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 141

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868041

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 142

**TRT#:** 9  
**DOSE:** TPA 5 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 266  
**HISTO:** 868042

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
Control  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Ulcer

Mild  
Marked  
Chronic Active, Minimal  
Chronic Active, Marked  
Moderate

[ Acanthosis TGLS = 2-4 ]  
[ Acanthosis TGLS = 2-4 ]  
[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

---

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 143

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868043

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 144

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868044

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Papilloma TGLS = 1-3,2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 145

**TRT#:** 9  
**DOSE:** TPA 5 COMPLETE

**SEX:** Male  
**DISP:** Natural Death

**DAY ON TEST:** 275  
**HISTO:** 868045

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation  
Ulcer  
Ulcer

Mild  
Chronic Active, Moderate  
Moderate  
Mild

[ Ulcer TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 146

**TRT#:** 9  
**DOSE:** TPA 5 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 231  
**HISTO:** 868046

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Ulcer

Mild  
Marked  
Chronic Active, Mild  
Chronic Active, Marked  
Marked

[ Acanthosis TGLS = 2-4 ]  
[ Acanthosis TGLS = 2-4 ]  
[ Ulcer TGLS = 1-3,3-5 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 147

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868047

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Marked

Control

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Marked

Ulcer

Moderate

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Ulcer TGLS = 1-3,3-5 ]

[ Ulcer TGLS = 1-3,3-5 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 148

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868048

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 149

**TRT#:** 9

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868049

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 150

**TRT#:** 9  
**DOSE:** TPA 5 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 295  
**HISTO:** 868050

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Ulcer

Mild  
Moderate  
Chronic Active, Mild  
Chronic Active, Marked  
Marked

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

PRIMARY CAUSE OF DEATH

---

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:48  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 151

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 285

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868081

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
Control  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Inflammation  
Ulcer

Mild  
Mild  
Chronic Active, Mild  
Chronic Active, Mild  
Chronic Active, Moderate  
Marked

---

[ Ulcer TGLS = 1-3,2-4 ]

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 152

**TRT#:** 11  
**DOSE:** MNNG100/COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 306  
**HISTO:** 868082

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
Control  
SOA-No Mass  
SOA-Mass, Subcut Tiss

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Sarcoma

Minimal  
Minimal  
Chronic Active, Minimal  
Chronic Active, Minimal

[ Sarcoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 153

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868083

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

Multiple

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Carcinoma TGLS = 1-3,3-5 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 154

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 341

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868084

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Carcinoma

Ulcer

Moderate

[ Acanthosis TGLS = 2-4 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Ulcer TGLS = 3-5 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 155

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868085

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Marked

[ Acanthosis TGLS = 1-3,3-5,4-6 ]

[ Acanthosis TGLS = 1-3,3-5,4-6 ]

[ Ulcer TGLS = 2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 156

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 348

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868086

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 157

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868087

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

Multiple

[ Squamous Cell Carcinoma TGLS = 1-3,2-4,3-5 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 158

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868088

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass

Squamous Cell Papilloma

[ Sarcoma TGLS = 2-3 ]

[ Squamous Cell Papilloma TGLS = 1-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 159

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868089

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Carcinoma

SOA-No Mass

Ulcer

Mild

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 2-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 160

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 230

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868090

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

Inflammation

Chronic Active, Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 4-6 ]

[ Inflammation TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 161

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868091

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 162

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 327

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868092

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 163

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 36

**DOSE:** MNNG100/COMPLETE

**DISP:** Natural Death

**HISTO:** 868093

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 164

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 348

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868094

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Moderate

Control

Inflammation

Chronic Active, Minimal

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Carcinoma

Multiple

Ulcer

Moderate

[ Acanthosis TGLS = 6-3 ]

[ Acanthosis TGLS = 6-3 ]

[ Squamous Cell Carcinoma TGLS = 2-5,1-6,3-7 ]

[ Ulcer TGLS = 4-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 165

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 219

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868095

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

[ Acanthosis TGLS = 1-4 ]

[ Acanthosis TGLS = 1-4 ]

[ Squamous Cell Carcinoma TGLS = 2-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 166

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 335

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868096

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 167

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868097

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

SOA-Mass

Squamous Cell Carcinoma

Multiple

[ Squamous Cell Carcinoma TGLS = 1-4,2-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 168

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 320

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868098

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

Inflammation

Chronic Active, Marked

SOA-Mass

Squamous Cell Papilloma

SOA-No Mass

Ulcer

Mild

Ulcer

Marked

[ Acanthosis TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Ulcer TGLS = 3-5,4-6,5-7 ]

[ Ulcer TGLS = 3-5,4-6,5-7 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 169

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 243

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868099

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass, Subcut Tiss

Sarcoma

[ Acanthosis TGLS = 2-4 ]

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 170

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 293

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868100

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

Squamous Cell Carcinoma

Metastatic (Skin)

Ulcer

Mild

[ Squamous Cell Carcinoma TGLS = 1-3,2-4 ]

[ Squamous Cell Carcinoma TGLS = 2-4 ]

[ Ulcer TGLS = 3-5 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 171

**TRT#:** 11  
**DOSE:** MNNG100/COMPLETE

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 363  
**HISTO:** 868101

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
SOA-No Mass, Subcut Tiss  
SOA-No Mass

Acanthosis  
Acanthosis  
Fibroma  
Inflammation

Minimal  
Mild  
Chronic Active, Minimal

[ Fibroma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 172

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 314

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868102

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 173

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868103

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Moderate

SOA-Mass

Squamous Cell Carcinoma

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 174

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868104

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-Mass

Squamous Cell Carcinoma

Multiple

SOA-Mass

Squamous Cell Papilloma

[ Acanthosis TGLS = 4-6 ]

[ Squamous Cell Carcinoma TGLS = 1-4,3-5 ]

[ Squamous Cell Papilloma TGLS = 2-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 175

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868105

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Ulcer

Mild

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 176

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868106

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

Control

Lymphoma Malignant Lymphocytic

SOA-No Mass

Lymphoma Malignant Lymphocytic

SOA-No Mass

Ulcer

Marked

[ Lymphoma Malignant Lymphocytic TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 177

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 348

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868107

---

**OBSERVATIONS**

\* Skin

Control  
SOA-Mass

Acanthosis  
Squamous Cell Carcinoma

Minimal

[ Squamous Cell Carcinoma TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 178

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868108

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 179

**TRT#:** 11

**SEX:** Male

**DAY ON TEST:** 348

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868109

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

SOA-No Mass

Ulcer

Marked

[ Squamous Cell Carcinoma TGLS = 1-4 ]

[ Squamous Cell Papilloma TGLS = 4-3 ]

[ Ulcer TGLS = 2-5,3-5 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 180

**TRT#:** 11  
**DOSE:** MNNG100/COMPLETE

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 365  
**HISTO:** 868110

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-Mass, Subcut Tiss

Acanthosis  
Inflammation  
Sarcoma

Mild  
Chronic Active, Minimal

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 181

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 313

**DOSE:** BPO 20 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868141

---

**OBSERVATIONS**

\* Skin

Inflammation

Chronic Active, Moderate

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 182

**TRT#:** 13  
**DOSE:** BPO 20 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 258  
**HISTO:** 868142

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation  
Inflammation  
Ulcer

Mild  
Chronic Active, Minimal  
Chronic Active, Moderate  
Marked

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 183

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868143

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 184

**TRT#:** 13  
**DOSE:** BPO 20 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 335  
**HISTO:** 868144

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis  
Inflammation  
Ulcer

Moderate  
Chronic Active, Moderate  
Marked

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 185

**TRT#:** 13  
**DOSE:** BPO 20 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 285  
**HISTO:** 868145

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
Control  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Inflammation  
Ulcer

Mild  
Moderate  
Chronic Active, Minimal  
Chronic Active, Minimal  
Chronic Active, Moderate  
Marked

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 186

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 256

**DOSE:** BPO 20 COMPLETE

**DISP:** Natural Death

**HISTO:** 868146

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 187

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868147

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 188

**TRT#:** 13  
**DOSE:** BPO 20 COMPLETE

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 362  
**HISTO:** 868148

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation

Mild  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 189

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 334

**DOSE:** BPO 20 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868149

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

[ Acanthosis TGLS = 1-3 ]

Acanthosis

Moderate

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 190

**TRT#:** 13  
**DOSE:** BPO 20 COMPLETE

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 362  
**HISTO:** 868150

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation

Minimal  
Mild  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 191

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868151

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 192

**TRT#:** 13  
**DOSE:** BPO 20 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 272  
**HISTO:** 868152

---

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Moderate
	Ulcer	Moderate

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 193

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868153

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 194

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 861554

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 195

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868155

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 196

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 215

**DOSE:** BPO 20 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868156

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

Ulcer

Marked

[ Ulcer TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 197

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868157

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 198

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868158

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 199

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868159

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 200

**TRT#:** 13  
**DOSE:** BPO 20 COMPLETE

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 348  
**HISTO:** 868160

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Ulcer

Mild  
Mild  
Chronic Active, Minimal  
Chronic Active, Moderate  
Moderate

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 201

**TRT#:** 13  
**DOSE:** BPO 20 COMPLETE

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 364  
**HISTO:** 868161

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
Control  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation

Minimal  
Mild  
Chronic Active, Minimal  
Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 202

**TRT#:** 13  
**DOSE:** BPO 20 COMPLETE

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 364  
**HISTO:** 868162

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation

Mild  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 203

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868163

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 204

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868164

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 205

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 231

**DOSE:** BPO 20 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868165

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Acanthosis

Mild

Inflammation

Chronic Active, Moderate

Ulcer

Marked

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 206

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 863166

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis  
Inflammation  
Ulcer

Minimal  
Chronic Active, Mild  
Mild

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 207

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868167

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 208

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868168

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 209

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868169

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 210

**TRT#:** 13

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868170

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 211

**TRT#:** 15  
**DOSE:** MNNG 100/BPO 20

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 362  
**HISTO:** 868201

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Ulcer  
Ulcer

Minimal  
Minimal  
Mild  
Mild

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 212

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868202

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 213

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868203

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 214

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868204

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 215

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868205

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 216

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868206

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 217

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868207

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Ulcer	Mild
SOA-No Mass	Ulcer	Mild

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 218

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868208

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 219

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868209

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 220

**TRT#:** 15  
**DOSE:** MNNG 100/BPO 20

**SEX:** Male  
**DISP:** Natural Death

**DAY ON TEST:** 220  
**HISTO:** 868210

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 221

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868211

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 222

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868212

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 223

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868213

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 224

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868214

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 225

**TRT#:** 15  
**DOSE:** MNNG 100/BPO 20

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 364  
**HISTO:** 868215

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-No Mass  
SOA-No Mass

Inflammation  
Inflammation  
Ulcer  
Ulcer

Chronic Active, Moderate  
Chronic Active, Moderate  
Marked  
Marked

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 226

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868216

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 227

**TRT#:** 15  
**DOSE:** MNNG 100/BPO 20

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 320  
**HISTO:** 868217

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Mild
SOA-No Mass	Ulcer	Mild
	Ulcer	Moderate
	Ulcer	Moderate

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Ulcer TGLS = 1-3,3-5.4-6 ]

[ Ulcer TGLS = 1-3,3-5.4-6 ]

[ Ulcer TGLS = 1-3,3-5.4-6 ]

[ Ulcer TGLS = 1-3,3-5.4-6 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 228

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868218

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 229

**TRT#:** 15  
**DOSE:** MNNG 100/BPO 20

**SEX:** Male  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 272  
**HISTO:** 868219

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Inflammation  
Ulcer  
Ulcer

Mild  
Mild  
Chronic Active, Minimal  
Chronic Active, Minimal  
Chronic Active, Moderate  
Chronic Active, Moderate  
Marked  
Marked

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 230

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868220

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 231

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868221

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 232

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 313

**DOSE:** MNNG 100/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868222

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

Ulcer

Moderate

Ulcer

Moderate

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 233

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868223

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 234

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868224

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 235

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868225

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 236

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868226

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 237

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868227

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Acanthosis TGLS = 2-3 ]

[ Acanthosis TGLS = 2-3 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 238

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868228

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 239

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868229

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 240

**TRT#:** 15

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868230

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 241

**TRT#:** 17  
**DOSE:** MNNG 500/BPO 20

**SEX:** Male  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 362  
**HISTO:** 868261

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-No Mass  
SOA-No Mass  
SOA-Mass, Subcut Tiss  
SOA-Mass, Subcut Tiss

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Sarcoma  
Sarcoma

Mild  
Mild  
Chronic Active, Minimal  
Chronic Active, Minimal

[ Acanthosis TGLS = 2-2 ]  
[ Acanthosis TGLS = 2-2 ]  
[ Sarcoma TGLS = 1-3 ]  
[ Sarcoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 242

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 215

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868262

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 243

**TRT#:** 17  
**DOSE:** MNNG 500/BPO 20

**SEX:** Male  
**DISP:** Natural Death

**DAY ON TEST:** 284  
**HISTO:** 868263

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Alopecia  
Alopecia

Mild  
Mild

SOA-No Mass  
SOA-No Mass

Inflammation  
Inflammation  
Ulcer  
Ulcer

Chronic Active, Moderate  
Chronic Active, Moderate  
Moderate  
Moderate

[ Acanthosis TGLS = 1-2 ]  
[ Acanthosis TGLS = 1-2 ]  
[ Alopecia TGLS = 3-4 ]  
[ Alopecia TGLS = 3-4 ]  
[ Ulcer TGLS = 2-3 ]  
[ Ulcer TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 244

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868264

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 245

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868265

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-Mass, Sebaceous GI

Hyperplasia

Minimal

SOA-Mass, Sebaceous GI

Hyperplasia

Minimal

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Hyperplasia TGLS = 2-4 ]

[ Hyperplasia TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 246

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 46

**DOSE:** MNNG 500/BPO 20

**DISP:** Natural Death

**HISTO:** 868266

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-2 ]

[ Ulcer TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

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Animal Note: TGL2, NOT FOUND AT TRIM

Animal Note: TGL2, NOT FOUND AT TRIM

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 247

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868267

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Ulcer TGLS = 1-4,2-3 ]

[ Ulcer TGLS = 1-4,2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 248

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868268

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-2 ]

[ Ulcer TGLS = 1-2 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 249

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 175

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868269

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Acanthosis

Mild

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

Ulcer

Marked

Ulcer

Marked

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

[ Inflammation TGLS = 2-4 ]

[ Inflammation TGLS = 2-4 ]

[ Inflammation TGLS = 2-4 ]

[ Inflammation TGLS = 2-4 ]

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-5, NO LESION FOUND AT MICRO

Animal Note: TGL3-5, NO LESION FOUND AT MICRO

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 250

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868270

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 251

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868271

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 252

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868272

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 253

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868273

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 254

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868274

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Ulcer

Mild

SOA-No Mass

Ulcer

Mild

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 255

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 173

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868275

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Sarcoma TGLS = 2-3 ]

[ Sarcoma TGLS = 2-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 256

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 334

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868276

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

Ulcer

Marked

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 257

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868277

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 258

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 246

**DOSE:** MNNG 500/BPO 20

**DISP:** Natural Death

**HISTO:** 868278

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

Ulcer

Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 3-5 ]

[ Acanthosis TGLS = 3-5 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 259

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868279

---

**OBSERVATIONS**

\* Skin

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 260

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 341

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868280

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-2 ]

[ Ulcer TGLS = 1-2 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 261

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868281

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 262

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 306

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868282

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

Ulcer

Marked

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 263

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 313

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868283

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 264

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868284

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 265

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 87

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868285

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 266

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868286

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 267

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868287

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 268

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 335

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868288

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 2-2 ]

[ Ulcer TGLS = 2-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

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Animal Note: TGL1-3, NO MASS PRESENT, JUST EXUDATE FROM ULCER

Animal Note: TGL1-3, NO MASS PRESENT, JUST EXUDATE FROM ULCER

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 269

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868289

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Ulcer

Mild

SOA-No Mass

Ulcer

Mild

[ Ulcer TGLS = 1-2 ]

[ Ulcer TGLS = 1-2 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 270

**TRT#:** 17

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868290

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 271

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 175

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868321

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Ulcer TGLS = 3-2,1-3 ]

[ Ulcer TGLS = 3-2,1-3 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 272

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868322

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Mild

Ulcer

Moderate

Ulcer

Moderate

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 273

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 306

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868323

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Sarcoma TGLS = 2-3 ]

[ Sarcoma TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 274

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 296

**DOSE:** MNNG1000/BPO 20

**DISP:** Natural Death

**HISTO:** 868324

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Hemorrhage

Mild

SOA-No Mass

Hemorrhage

Mild

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

[ Hemorrhage TGLS = 2-2 ]

[ Hemorrhage TGLS = 2-2 ]

[ Squamous Cell Carcinoma TGLS = 1-2 ]

[ Squamous Cell Carcinoma TGLS = 1-2 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 275

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 327

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868325

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Carcinoma	
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Ulcer TGLS = 2-2 ]

[ Ulcer TGLS = 2-2 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 276

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 348

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868326

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 277

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 197

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868327

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

Ulcer

Marked

Ulcer

Marked

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 2-4,3-5 ]

[ Ulcer TGLS = 2-4,3-5 ]

[ Ulcer TGLS = 2-4,3-5 ]

[ Ulcer TGLS = 2-4,3-5 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 278

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 300

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868328

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

Ulcer

Marked

Ulcer

Marked

[ Sarcoma TGLS = 2-5 ]

[ Sarcoma TGLS = 2-5 ]

[ Ulcer TGLS = 1-3,3-4 ]

[ Ulcer TGLS = 1-3,3-4 ]

[ Ulcer TGLS = 1-3,3-4 ]

[ Ulcer TGLS = 1-3,3-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 279

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 357

**DOSE:** MNNG1000/BPO 20

**DISP:** Natural Death

**HISTO:** 868329

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

[ Acanthosis TGLS = 2-2,3-3 ]

[ Acanthosis TGLS = 2-2,3-3 ]

[ Ulcer TGLS = 1-4 ]

[ Ulcer TGLS = 1-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 280

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 197

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868330

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 281

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868331

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 282

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 258

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868332

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Hair Follicle, SOA-No Mass	Cyst	
Hair Follicle, SOA-No Mass	Cyst	
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Ulcer	Marked
	Ulcer	Marked

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3 ]

[ Ulcer TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 283

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 224

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868333

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Marked
	Inflammation	Chronic Active, Marked
	Ulcer	Marked
	Ulcer	Marked

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3 ]

[ Ulcer TGLS = 2-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 284

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 238

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868334

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked

[ Acanthosis TGLS = 3-2 ]  
[ Acanthosis TGLS = 3-2 ]  
[ Acanthosis TGLS = 3-2 ]  
[ Acanthosis TGLS = 3-2 ]  
[ Sarcoma TGLS = 1,2-4 ]  
[ Sarcoma TGLS = 1,2-4 ]  
[ Ulcer TGLS = 4-5,5-5,6-3 ]  
[ Ulcer TGLS = 4-5,5-5,6-3 ]  
[ Ulcer TGLS = 4-5,5-5,6-3 ]  
[ Ulcer TGLS = 4-5,5-5,6-3 ]

**PRIMARY CAUSE OF DEATH**

-

Animal Note: NO TRUE MASSES ARE PRESENT ON MICRO

Animal Note: NO TRUE MASSES ARE PRESENT ON MICRO

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 285

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 229

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868335

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Carcinoma	

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 286

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 200

**DOSE:** MNNG1000/BPO 20

**DISP:** Natural Death

**HISTO:** 868336

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Acanthosis TGLS = 1-5,4-2,5-3,6-3 ]

[ Acanthosis TGLS = 1-5,4-2,5-3,6-3 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3 VENTRAL MASS MISSING AT TRIM

Animal Note: TGL3 VENTRAL MASS MISSING AT TRIM

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 287

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868337

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-Mass, Subcut Tiss

Hemangioma

SOA-Mass, Subcut Tiss

Hemangioma

[ Hemangioma TGLS = 1-3 ]

[ Hemangioma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 288

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868338

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 289

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868339

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**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Ulcer

Mild

SOA-No Mass

Ulcer

Mild

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 290

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 219

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868340

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

Ulcer

Marked

Ulcer

Marked

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3 ]

[ Ulcer TGLS = 2-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 291

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 126

**DOSE:** MNNG1000/BPO 20

**DISP:** Natural Death

**HISTO:** 868341

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Ulcer

Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 292

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 246

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868342

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 293

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 277

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868343

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

Acanthosis

Mild

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

SOA-No Mass

Ulcer

Mild

SOA-No Mass

Ulcer

Mild

[ Acanthosis TGLS = 5-6,3-5 ]

[ Acanthosis TGLS = 5-6,3-5 ]

[ Acanthosis TGLS = 5-6,3-5 ]

[ Acanthosis TGLS = 5-6,3-5 ]

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

[ Ulcer TGLS = 2-2,4-4 ]

[ Ulcer TGLS = 2-2,4-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 294

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 299

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868344

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked
	Ulcer	Marked
	Ulcer	Marked

[ Ulcer TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 295

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 285

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868345

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

Ulcer

Moderate

Ulcer

Moderate

[ Sarcoma TGLS = 2-2 ]

[ Sarcoma TGLS = 2-2 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 296

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868346

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 297

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 195

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868347

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 298

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 174

**DOSE:** MNNG1000/BPO 20

**DISP:** Natural Death

**HISTO:** 868348

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

SOA-No Mass

Ulcer

Mild

SOA-No Mass

Ulcer

Mild

Ulcer

Moderate

Ulcer

Moderate

[ Squamous Cell Papilloma TGLS = 2-3 ]

[ Squamous Cell Papilloma TGLS = 2-3 ]

[ Ulcer TGLS = 1-4,3-5 ]

[ Ulcer TGLS = 1-4,3-5 ]

[ Ulcer TGLS = 1-4,3-5 ]

[ Ulcer TGLS = 1-4,3-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 299

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868349

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Sarcoma TGLS = 1-3,3-5 ]

[ Sarcoma TGLS = 1-3,3-5 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 300

**TRT#:** 19

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868350

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 301

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 284

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868381

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Marked
SOA-No Mass	Acanthosis	Marked
	Acanthosis	Marked
	Acanthosis	Marked
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked
	Ulcer	Marked
	Ulcer	Marked

[ Acanthosis TGLS = 6-2,2-3,3-4,4-5,5-6 ]

[ Acanthosis TGLS = 6-2,2-3,3-4,4-5,5-6 ]

[ Acanthosis TGLS = 6-2,2-3,3-4,4-5,5-6 ]

[ Acanthosis TGLS = 6-2,2-3,3-4,4-5,5-6 ]

[ Acanthosis TGLS = 6-2,2-3,3-4,4-5,5-6 ]

[ Acanthosis TGLS = 6-2,2-3,3-4,4-5,5-6 ]

[ Ulcer TGLS = 1-2,7-4,8-7 ]

[ Ulcer TGLS = 1-2,7-4,8-7 ]

[ Ulcer TGLS = 1-2,7-4,8-7 ]

[ Ulcer TGLS = 1-2,7-4,8-7 ]

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL9-7, NOT TRUE ALOPECIA, HAIR SHAFTS PRESENT

Animal Note: TGL9-7, NOT TRUE ALOPECIA, HAIR SHAFTS PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 302

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 336

**DOSE:** MNNG 100/TPA 5

**DISP:** Natural Death

**HISTO:** 868382

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Ulcer	Marked
	Ulcer	Marked

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3 ]

[ Ulcer TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 303

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868383

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Ulcer	Marked
	Ulcer	Marked

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 304

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 325

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868384

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Papilloma TGLS = 1-3,1-4,1-5,1-6,1-7 ]

[ Squamous Cell Papilloma TGLS = 1-3,1-4,1-5,1-6,1-7 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 305

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 85

**DOSE:** MNNG 100/TPA 5

**DISP:** Natural Death

**HISTO:** 868385

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 306

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 235

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868386

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 307

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 313

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868387

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Ulcer

Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 308

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 295

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868388

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Marked
SOA-No Mass	Acanthosis	Marked
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate
	Ulcer	Moderate
	Ulcer	Moderate

[ Acanthosis TGLS = 1-2 ]  
[ Acanthosis TGLS = 1-2 ]  
[ Acanthosis TGLS = 1-2 ]  
[ Acanthosis TGLS = 1-2 ]  
[ Squamous Cell Papilloma TGLS = 4-5 ]  
[ Squamous Cell Papilloma TGLS = 4-5 ]  
[ Ulcer TGLS = 2-3,3-4 ]  
[ Ulcer TGLS = 2-3,3-4 ]  
[ Ulcer TGLS = 2-3,3-4 ]  
[ Ulcer TGLS = 2-3,3-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 309

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 259

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868389

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Ulcer

Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3 ]

[ Ulcer TGLS = 2-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose MF:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 310

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 176

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868390

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 311

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868391

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Marked
SOA-No Mass	Acanthosis	Marked
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-Mass	Squamous Cell Carcinoma	Multiple
SOA-Mass	Squamous Cell Carcinoma	Multiple

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Squamous Cell Carcinoma TGLS = 1-3,2-4 ]

[ Squamous Cell Carcinoma TGLS = 1-3,2-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 312

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 230

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868392

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-No Mass	Inflammation	Chronic Active, Marked
	Ulcer	Marked
	Ulcer	Marked

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose MF:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 313

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 296

**DOSE:** MNNG 100/TPA 5

**DISP:** Natural Death

**HISTO:** 868393

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate
	Ulcer	Moderate
	Ulcer	Moderate

[ Acanthosis TGLS = 3-2,1-3 ]

[ Acanthosis TGLS = 3-2,1-3 ]

[ Acanthosis TGLS = 3-2,1-3 ]

[ Acanthosis TGLS = 3-2,1-3 ]

[ Ulcer TGLS = 2-4,4-5 ]

[ Ulcer TGLS = 2-4,4-5 ]

[ Ulcer TGLS = 2-4,4-5 ]

[ Ulcer TGLS = 2-4,4-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 314

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868394

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**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Papilloma TGLS = 1-3,2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3,2-4 ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 315

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 272

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868395

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate
	Ulcer	Moderate
	Ulcer	Moderate

[ Ulcer TGLS = 1-2,2-3 ]

[ Ulcer TGLS = 1-2,2-3 ]

[ Ulcer TGLS = 1-2,2-3 ]

[ Ulcer TGLS = 1-2,2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 316

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 313

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868396

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
	Inflammation	Chronic Active, Marked
	Inflammation	Chronic Active, Marked

[ Inflammation TGLS = 1-3 ]

[ Inflammation TGLS = 1-3 ]

[ Inflammation TGLS = 1-3 ]

[ Inflammation TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 317

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 348

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868397

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 318

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868398

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Ulcer TGLS = 2-2 ]

[ Ulcer TGLS = 2-2 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 319

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868399

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass	Squamous Cell Papilloma	Multiple
SOA-Mass	Squamous Cell Papilloma	Multiple

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 320

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868400

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass	Squamous Cell Papilloma	Multiple
SOA-Mass	Squamous Cell Papilloma	Multiple

[ Squamous Cell Papilloma TGLS = 5-2,1-3.4-6,3-5 ]

[ Squamous Cell Papilloma TGLS = 5-2,1-3.4-6,3-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 321

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 335

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868401

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 322

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868402

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

[ Inflammation TGLS = 1-2 ]

[ Inflammation TGLS = 1-2 ]

[ Inflammation TGLS = 1-2 ]

[ Inflammation TGLS = 1-2 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 323

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 259

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868403

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Ulcer	Mild
	Ulcer	Mild

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3 ]

[ Ulcer TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 324

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868404

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**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 325

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 271

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868405

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**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 326

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868406

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Ulcer

Mild

SOA-No Mass

Ulcer

Mild

[ Ulcer TGLS = 1-3,2-3 ]

[ Ulcer TGLS = 1-3,2-3 ]

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 327

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 299

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868407

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	
	Ulcer	Moderate
	Ulcer	Moderate

[ Acanthosis TGLS = 4-2 ]  
[ Acanthosis TGLS = 4-2 ]  
[ Acanthosis TGLS = 4-2 ]  
[ Acanthosis TGLS = 4-2 ]  
[ Squamous Cell Papilloma TGLS = 5-3 ]  
[ Squamous Cell Papilloma TGLS = 5-3 ]  
[ Ulcer TGLS = 1-5,2-7,3-6,6-4 ]  
[ Ulcer TGLS = 1-5,2-7,3-6,6-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 328

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 230

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868408

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Ulcer

Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3,3-4 ]

[ Ulcer TGLS = 2-3,3-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 329

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 181

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868409

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Mild
SOA-No Mass	Ulcer	Mild
	Ulcer	Moderate
	Ulcer	Moderate

[ Ulcer TGLS = 1-3,2-4,3-5 ]  
[ Ulcer TGLS = 1-3,2-4,3-5 ]  
[ Ulcer TGLS = 1-3,2-4,3-5 ]  
[ Ulcer TGLS = 1-3,2-4,3-5 ]

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL4-6, NOT TRUE ALOPECIA, HAIR SHAFTS PRESENT

Animal Note: TGL4-6, NOT TRUE ALOPECIA, HAIR SHAFTS PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 330

**TRT#:** 21

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868410

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Papilloma TGLS = 1-3,2-4,3-5,4-6 ]

[ Squamous Cell Papilloma TGLS = 1-3,2-4,3-5,4-6 ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 331

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 249

**DOSE:** MNNG1000/TPA 5

**DISP:** Natural Death

**HISTO:** 868441

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 332

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 236

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868442

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Ulcer	Moderate
	Ulcer	Moderate

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 333

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 362

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868443

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Acanthosis

Marked

SOA-Mass, Subcut Tiss

Hemangiosarcoma

SOA-Mass, Subcut Tiss

Hemangiosarcoma

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Acanthosis TGLS = 6-5,5-4,8-7 ]

[ Acanthosis TGLS = 6-5,5-4,8-7 ]

[ Hemangiosarcoma TGLS = 2-7 ]

[ Hemangiosarcoma TGLS = 2-7 ]

[ Squamous Cell Papilloma TGLS = 4-3 ]

[ Squamous Cell Papilloma TGLS = 4-3 ]

[ Ulcer TGLS = 1-2,7-2 ]

[ Ulcer TGLS = 1-2,7-2 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 334

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 195

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868444

---

**OBSERVATIONS**

\* Skin

Subcut Tiss

Edema

Marked

Subcut Tiss

Edema

Marked

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Edema TGLS = 3-5 ]

[ Edema TGLS = 3-5 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 335

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 173

**DOSE:** MNNG1000/TPA 5

**DISP:** Natural Death

**HISTO:** 868445

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
	Inflammation	Chronic Active, Mild
	Inflammation	Chronic Active, Mild
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Carcinoma	
	Squamous Cell Carcinoma	Metastatic (Skin)
	Squamous Cell Carcinoma	Metastatic (Skin)
	Ulcer	Mild
	Ulcer	Mild

[ Acanthosis TGLS = 5-2 ]

[ Acanthosis TGLS = 5-2 ]

[ Acanthosis TGLS = 5-2 ]

[ Acanthosis TGLS = 5-2 ]

[ Squamous Cell Carcinoma TGLS = 1-5,4-3,6-4 ]

[ Squamous Cell Carcinoma TGLS = 1-5,4-3,6-4 ]

[ Squamous Cell Carcinoma TGLS = 1-5,4-3,6-4 ]

[ Squamous Cell Carcinoma TGLS = 1-5,4-3,6-4 ]

[ Ulcer TGLS = 2-6,3-7 ]

[ Ulcer TGLS = 2-6,3-7 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 336

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 224

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868446

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 337

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 175

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868447

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

Ulcer

Marked

Ulcer

Marked

[ Inflammation TGLS = 1-3 ]

[ Inflammation TGLS = 1-3 ]

[ Inflammation TGLS = 1-3 ]

[ Inflammation TGLS = 1-3 ]

[ Ulcer TGLS = 2-4,3-5 ]

[ Ulcer TGLS = 2-4,3-5 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 338

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 293

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868448

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked

[ Squamous Cell Carcinoma TGLS = 1-4 ]

[ Squamous Cell Carcinoma TGLS = 1-4 ]

[ Squamous Cell Papilloma TGLS = 2-3 ]

[ Squamous Cell Papilloma TGLS = 2-3 ]

[ Ulcer TGLS = 3-2 ]

[ Ulcer TGLS = 3-2 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 339

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 363

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868449

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Acanthosis

Marked

Hair Follicle, SOA-No Mass

Cyst

Hair Follicle, SOA-No Mass

Cyst

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

SOA-No Mass

Ulcer

Mild

SOA-No Mass

Ulcer

Mild

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

[ Ulcer TGLS = 3-2 ]

[ Ulcer TGLS = 3-2 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 340

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 227

**DOSE:** MNNG1000/TPA 5

**DISP:** Natural Death

**HISTO:** 868450

**OBSERVATIONS**

\* Skin

SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-Mass	Keratoacanthoma	
SOA-Mass	Keratoacanthoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	
Control	Ulcer	Minimal
Control	Ulcer	Minimal
	Ulcer	Moderate
	Ulcer	Moderate

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Keratoacanthoma TGLS = 2-3 ]

[ Keratoacanthoma TGLS = 2-3 ]

[ Sarcoma TGLS = 1-4 ]

[ Sarcoma TGLS = 1-4 ]

[ Ulcer TGLS = 4-5 ]

[ Ulcer TGLS = 4-5 ]

[ Ulcer TGLS = 4-5 ]

[ Ulcer TGLS = 4-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 341

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 364

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868451

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**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 342

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 168

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868452

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-2 ]

[ Sarcoma TGLS = 1-2 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 343

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 197

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868453

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

[ Ulcer TGLS = 2-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 344

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 175

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868454

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Ulcer	Moderate
	Ulcer	Moderate

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3 ]

[ Ulcer TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 345

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 236

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868455

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Ulcer

Marked

Ulcer

Marked

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 346

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 293

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868456

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-Mass	Keratoacanthoma	Multiple
SOA-Mass	Keratoacanthoma	Multiple
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass	Squamous Cell Papilloma	Multiple
SOA-Mass	Squamous Cell Papilloma	Multiple

[ Keratoacanthoma TGLS = 4-3,1-5 ]

[ Keratoacanthoma TGLS = 4-3,1-5 ]

[ Sarcoma TGLS = 1-5 ]

[ Sarcoma TGLS = 1-5 ]

[ Squamous Cell Papilloma TGLS = 5-3,2-4,3-4 ]

[ Squamous Cell Papilloma TGLS = 5-3,2-4,3-4 ]

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL6, NOT SEEN AT TRIM

Animal Note: TGL6, NOT SEEN AT TRIM

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 347

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 365

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868457

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Acanthosis TGLS = 2-3 ]

[ Acanthosis TGLS = 2-3 ]

[ Squamous Cell Papilloma TGLS = 1,3-3,4 ]

[ Squamous Cell Papilloma TGLS = 1,3-3,4 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 348

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 176

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868458

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Acanthosis

Marked

Acanthosis

Marked

Subcut Tiss

Infiltration Cellular

Mixed Cell, Moderate

Subcut Tiss

Infiltration Cellular

Mixed Cell, Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Squamous Cell Carcinoma

Squamous Cell Carcinoma

[ Acanthosis TGLS = 1-2,3-6,4-5 ]

[ Acanthosis TGLS = 1-2,3-6,4-5 ]

[ Acanthosis TGLS = 1-2,3-6,4-5 ]

[ Acanthosis TGLS = 1-2,3-6,4-5 ]

[ Infiltration Cellular TGLS = 5-4 ]

[ Infiltration Cellular TGLS = 5-4 ]

[ Squamous Cell Carcinoma TGLS = 2-3 ]

[ Squamous Cell Carcinoma TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 349

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 243

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868459

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Acanthosis TGLS = 3-5 ]

[ Acanthosis TGLS = 3-5 ]

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 350

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 334

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868460

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL1-3,IS ULCER,NOT MASS, ON MICRO

Animal Note: TGL1-3,IS ULCER,NOT MASS, ON MICRO

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 351

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 299

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868461

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Sarcoma TGLS = 2-3 ]

[ Sarcoma TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 352

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 246

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868462

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Carcinoma	
	Ulcer	Marked
	Ulcer	Marked

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

[ Ulcer TGLS = 2-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 353

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 306

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868463

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass	Keratoacanthoma	
SOA-Mass	Keratoacanthoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Keratoacanthoma TGLS = 1-5 ]

[ Keratoacanthoma TGLS = 1-5 ]

[ Sarcoma TGLS = 3-4 ]

[ Sarcoma TGLS = 3-4 ]

[ Squamous Cell Papilloma TGLS = 2-3 ]

[ Squamous Cell Papilloma TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH** -

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 354

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 243

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868464

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Hair Follicle, SOA-No Mass	Cyst	
Hair Follicle, SOA-No Mass	Cyst	
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Acanthosis TGLS = 6-4,5-4 ]

[ Acanthosis TGLS = 6-4,5-4 ]

[ Acanthosis TGLS = 6-4,5-4 ]

[ Acanthosis TGLS = 6-4,5-4 ]

[ Cyst TGLS = 3-6 ]

[ Cyst TGLS = 3-6 ]

[ Sarcoma TGLS = 2-5 ]

[ Sarcoma TGLS = 2-5 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL4, NO SKIN NODULE FOUNG AT TRIM

Animal Note: TGL4, NO SKIN NODULE FOUNG AT TRIM

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 355

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 128

**DOSE:** MNNG1000/TPA 5

**DISP:** Natural Death

**HISTO:** 868465

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Ulcer

Marked

SOA-Mass

Ulcer

Marked

[ Ulcer TGLS = 1-2 ]

[ Ulcer TGLS = 1-2 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 356

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 293

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868466

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Moderate

Control

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 2-2 ]

[ Squamous Cell Carcinoma TGLS = 2-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

Animal Note: TGL 1 NOT SEEN AT TRIM

Animal Note: TGL 1 NOT SEEN AT TRIM

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 357

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 175

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868467

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

Ulcer

Mild

Ulcer

Mild

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3,3-4 ]

[ Ulcer TGLS = 2-3,3-4 ]

[ Ulcer TGLS = 2-3,3-4 ]

[ Ulcer TGLS = 2-3,3-4 ]

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4 NOT SEEN AT TRIM

Animal Note: TGL4 NOT SEEN AT TRIM

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 358

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 299

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868468

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass	Squamous Cell Papilloma	Multiple
SOA-Mass	Squamous Cell Papilloma	Multiple
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked

[ Acanthosis TGLS = 5-6 ]

[ Acanthosis TGLS = 5-6 ]

[ Acanthosis TGLS = 5-6 ]

[ Acanthosis TGLS = 5-6 ]

[ Squamous Cell Papilloma TGLS = 1-3,2-4,3-5 ]

[ Squamous Cell Papilloma TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 4-6 ]

[ Ulcer TGLS = 4-6 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 359

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 231

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868469

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

Ulcer

Marked

Ulcer

Marked

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 360

**TRT#:** 23

**SEX:** Male

**DAY ON TEST:** 271

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868470

**OBSERVATIONS**

\* Skin

SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-No Mass	Inflammation	Chronic Active, Marked
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked
	Ulcer	Moderate
	Ulcer	Moderate

[ Acanthosis TGLS = 4-4 ]

[ Acanthosis TGLS = 4-4 ]

[ Sarcoma TGLS = 1-5 ]

[ Sarcoma TGLS = 1-5 ]

[ Ulcer TGLS = 3-3,2-6 ]

[ Ulcer TGLS = 3-3,2-6 ]

[ Ulcer TGLS = 3-3,2-6 ]

[ Ulcer TGLS = 3-3,2-6 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 361

**TRT#:** 2  
**DOSE:** VEHICLE CONTROL

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 335  
**HISTO:** 867811

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis  
Inflammation  
Ulcer

Mild  
Chronic Active, Marked  
Marked

[ Inflammation TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 362

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867812

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 363

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867813

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 364

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867814

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 365

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867815

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 366

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867816

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 367

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867817

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 368

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867818

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 369

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867819

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 370

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867820

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 371

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867821

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 372

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867822

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 373

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 347

**DOSE:** VEHICLE CONTROL

**DISP:** Moribund Sacrifice

**HISTO:** 867823

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 374

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867824

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**ORGAN AND ACCOUNTABLE SITE STATUS**

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**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 375

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867825

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 376

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867826

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

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**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 377

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867827

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 378

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867828

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 379

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867829

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 380

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867830

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**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 381

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867831

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 382

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867832

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 383

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867833

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 384

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867834

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 385

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867835

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 386

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 360

**DOSE:** VEHICLE CONTROL

**DISP:** Natural Death

**HISTO:** 867836

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 387

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867837

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 388

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867838

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-3,2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 389

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867839

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 390

**TRT#:** 2

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** 867840

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 391

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867871

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 392

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867872

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 393

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 154

**DOSE:** MNNG 100/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867873

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 394

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867874

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 395

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867875

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 396

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867876

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 397

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867877

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 398

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867878

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 399

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867879

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 400

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867880

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 401

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867881

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 402

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867882

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 403

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867883

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 404

**TRT#:** 4  
**DOSE:** MNNG 100/ACETONE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 363  
**HISTO:** 867884

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation

Minimal  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 405

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867885

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 406

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867886

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 407

**TRT#:** 4  
**DOSE:** MNNG 100/ACETONE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 364  
**HISTO:** 867887

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation

Minimal  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 408

**TRT#:** 4  
**DOSE:** MNNG 100/ACETONE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 364  
**HISTO:** 867888

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation  
Ulcer

Moderate  
Chronic Active, Mild  
Mild

[ Acanthosis TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 409

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867889

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 410

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867890

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 411

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867891

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 412

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867892

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 413

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867893

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 414

**TRT#:** 4  
**DOSE:** MNNG 100/ACETONE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 365  
**HISTO:** 867894

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation

Minimal  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 415

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867895

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 416

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867896

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 417

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867897

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 418

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867898

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 419

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867899

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 420

**TRT#:** 4

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867900

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 421

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867931

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

Hair Follicle, SOA-No Mass

Cyst

SOA-No Mass

Inflammation

Chronic Active, Minimal

[ Cyst TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

Animal Note: TGL1-3, IS A CYST, NOT A MASS.

Animal Note: TGL2-4, NOT TRUE ALOPECIA, HAIR SHAFTS PRESENT

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 422

**TRT#:** 6  
**DOSE:** MNNG 500/ACETONE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 362  
**HISTO:** 867932

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation

Minimal  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 423

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867933

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 424

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867934

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 425

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867935

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 426

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867936

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 427

**TRT#:** 6  
**DOSE:** MNNG 500/ACETONE

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 257  
**HISTO:** 867937

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
Control  
SOA-No Mass  
SOA-Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Squamous Cell Carcinoma

Minimal  
Mild  
Chronic Active, Minimal  
Chronic Active, Minimal

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 428

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867938

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 429

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867939

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 430

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867940

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 431

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867941

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 432

**TRT#:** 6  
**DOSE:** MNNG 500/ACETONE

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 175  
**HISTO:** 867942

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation  
Ulcer

Moderate  
Chronic Active, Marked  
Marked

[ Inflammation TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 433

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867943

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

Control

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 434

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867944

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 435

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867945

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 437

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 42

**DOSE:** MNNG 500/ACETONE

**DISP:** Natural Death

**HISTO:** 867947

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Ulcer

Mild

[ Acanthosis TGLS = 1,2,3-3,4,5 ]

[ Ulcer TGLS = 4-6 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 438

**TRT#:** 6  
**DOSE:** MNNG 500/ACETONE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 364  
**HISTO:** 867948

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
Hair Follicle, SOA-No Mass  
SOA-No Mass  
SOA-Mass, Subcut Tiss

Acanthosis  
Cyst  
Inflammation  
Sarcoma

Mild  
  
Chronic Active, Minimal

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 439

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867949

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 440

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867950

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

Control

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 441

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867951

---

**OBSERVATIONS**

\* Skin

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 442

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867952

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Carcinoma TGLS = 3-5 ]

[ Squamous Cell Papilloma TGLS = 1-3,2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 443

**TRT#:** 6  
**DOSE:** MNNG 500/ACETONE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 364  
**HISTO:** 867953

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation

Minimal  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 444

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867954

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 445

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867955

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 446

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867956

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 447

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867957

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 448

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867958

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 449

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867959

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 450

**TRT#:** 6

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867960

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-Mass, Subcut Tiss

Fibroma

SOA-No Mass

Inflammation

Chronic Active, Minimal

[ Fibroma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 451

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 151

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867991

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass, Subcut Tiss

Sarcoma

[ Acanthosis TGLS = 2-4 ]

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

Animal Note: TGL3-5, SKIN CRUST NOT SEEN AT TRIM

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 452

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 267

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867992

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 453

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867993

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Marked

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 454

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 81

**DOSE:** MNNG1000/ACETONE

**DISP:** Natural Death

**HISTO:** 867994

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 455

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 230

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867995

---

**OBSERVATIONS**

\* Skin

Subcut Tiss

Acanthosis  
Infiltration Cellular  
Inflammation  
Ulcer

Marked  
Mixed Cell, Moderate  
Chronic Active, Marked  
Marked

[ Acanthosis TGLS = 1-3,2-4 ]

[ Infiltration Cellular TGLS = 4-6 ]

[ Ulcer TGLS = 3-5 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 456

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 867996

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 457

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 95

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867997

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 458

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 267

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 867998

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

SOA-Mass, Subcut Tiss

Sarcoma

SOA-No Mass

Ulcer

Marked

Ulcer

Marked

[ Inflammation TGLS = 1-6,2-4,4-5 ]

[ Inflammation TGLS = 1-6,2-4,4-5 ]

[ Sarcoma TGLS = 1-6 ]

[ Ulcer TGLS = 1-6,2-4,4-5 ]

[ Ulcer TGLS = 1-6,2-4,4-5 ]

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-3, NCL, NOT TRUE ALOPECIA, HAIR SHAFTS PRESENT

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 459

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 43

**DOSE:** MNNG1000/ACETONE

**DISP:** Natural Death

**HISTO:** 867999

---

**OBSERVATIONS**

\* Skin

Control

Inflammation

Chronic Active, Mild

Control

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 460

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868000

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 461

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868001

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 462

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868002

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 463

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868003

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Carcinoma TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 464

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868004

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 465

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868005

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 466

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 230

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 868006

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Carcinoma

Multiple

SOA-No Mass

Ulcer

Moderate

Ulcer

Moderate

[ Squamous Cell Carcinoma TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 3-5,4-6 ]

[ Ulcer TGLS = 3-5,4-6 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 467

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 194

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 868007

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

Ulcer

Moderate

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 468

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868008

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 469

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868009

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 470

**TRT#:** 8  
**DOSE:** MNNG1000/ACETONE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 364  
**HISTO:** 868010

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
Hair Follicle, SOA-No Mass  
SOA-No Mass

Acanthosis  
Cyst  
Inflammation

Minimal  
  
Chronic Active, Minimal

[ Cyst TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 471

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 214

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 868011

---

**OBSERVATIONS**

\* Skin

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 472

**TRT#:** 8  
**DOSE:** MNNG1000/ACETONE

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 229  
**HISTO:** 868012

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
Hair Follicle, SOA-No Mass  
SOA-No Mass  
SOA-Mass, Subcut Tiss  
SOA-Mass

Acanthosis  
Cyst  
Inflammation  
Sarcoma  
Squamous Cell Carcinoma

Mild  
  
Chronic Active, Minimal

[ Sarcoma TGLS = 2-4 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 473

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868013

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 474

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 183

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 868014

**OBSERVATIONS**

\* Skin

SOA-No Mass

SOA-No Mass, Subcut Tiss

Acanthosis

Alopecia

Inflammation

Inflammation

Sarcoma

Ulcer

Moderate

Chronic Active, Moderate

Chronic Active, Marked

Marked

[ Acanthosis TGLS = 5-7 ]

[ Alopecia TGLS = 4-6 ]

[ Inflammation TGLS = 1-3,2-4,3-5 ]

[ Inflammation TGLS = 1-3,2-4,3-5 ]

[ Sarcoma TGLS = 3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 475

**TRT#:** 8  
**DOSE:** MNNG1000/ACETONE

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 219  
**HISTO:** 898015

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation  
Inflammation  
Ulcer

Moderate  
Chronic Active, Moderate  
Chronic Active, Marked  
Marked

[ Acanthosis TGLS = 3-2 ]

[ Ulcer TGLS = 1-4,2-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 476

**TRT#:** 8  
**DOSE:** MNNG1000/ACETONE

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 335  
**HISTO:** 868016

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis  
Inflammation  
Ulcer

Minimal  
Chronic Active, Moderate  
Moderate

[ Inflammation TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 477

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868017

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 478

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868018

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 479

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/ACETONE

**DISP:** Terminal Sacrifice

**HISTO:** 868019

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 480

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 316

**DOSE:** MNNG1000/ACETONE

**DISP:** Moribund Sacrifice

**HISTO:** 868020

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Carcinoma

SOA-No Mass

Ulcer

Moderate

[ Squamous Cell Carcinoma TGLS = 1-4 ]

[ Ulcer TGLS = 2-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 481

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 360

**DOSE:** TPA 5 COMPLETE

**DISP:** Natural Death

**HISTO:** 868051

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 482

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868052

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Papilloma

SOA-No Mass

Ulcer

Marked

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 483

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868053

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 484

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868054

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 485

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868055

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Marked

---

[ Ulcer TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 486

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868056

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 487

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868057

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 488

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868058

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 489

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868059

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 490

**TRT#:** 10  
**DOSE:** TPA 5 COMPLETE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 363  
**HISTO:** 868060

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
Control  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation

Mild  
Moderate  
Chronic Active, Minimal  
Chronic Active, Mild

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 491

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868061

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 492

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868062

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

[ Acanthosis TGLS = 1,2-3,4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 493

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868063

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 494

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868064

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 495

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868065

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 497

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 194

**DOSE:** TPA 5 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868067

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
Subcut Tiss

Acanthosis  
Lymphoma Malignant Lymphocytic

Marked

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 498

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868068

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Inflammation

Mild

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 499

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 221

**DOSE:** TPA 5 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868069

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Marked

Ulcer

Marked

[ Acanthosis TGLS = 2-4,3-5 ]

[ Acanthosis TGLS = 2-4,3-5 ]

[ Ulcer TGLS = 1-3,4-6 ]

[ Ulcer TGLS = 1-3,4-6 ]

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL4-6, MASS IS REALLY A LARGE ULCER

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 500

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868070

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Marked

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 501

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868071

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 502

**TRT#:** 10  
**DOSE:** TPA 5 COMPLETE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 365  
**HISTO:** 868072

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
SOA-No Mass  
SOA-Mass

Acanthosis  
Acanthosis  
Inflammation  
Squamous Cell Papilloma

Mild  
Moderate  
Chronic Active, Moderate

[ Acanthosis TGLS = 2-7,3-5,2-4,3-5 ]

[ Acanthosis TGLS = 2-7,3-5,2-4,3-5 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 503

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868073

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-Mass

Squamous Cell Papilloma

[ Acanthosis TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 505

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868075

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 506

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868076

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 507

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 219

**DOSE:** TPA 5 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868077

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-3,2-4 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 508

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 300

**DOSE:** TPA 5 COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868078

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

Control

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

Ulcer

Moderate

[ Ulcer TGLS = 1-3,2-4,1-3,2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 509

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868079

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Ulcer

Mild

[ Ulcer TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 510

**TRT#:** 10

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** TPA 5 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868080

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 511

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868111

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 512

**TRT#:** 12  
**DOSE:** MNNG100/COMPLETE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 362  
**HISTO:** 868112

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
Control  
SOA-No Mass  
SOA-Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Squamous Cell Carcinoma  
Ulcer

Minimal  
Minimal  
Chronic Active, Minimal  
Chronic Active, Marked  
Marked

[ Squamous Cell Carcinoma TGLS = 1-5 ]

[ Ulcer TGLS = 2-6,3-3,4-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 513

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868113

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

Control

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 514

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 347

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868114

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

Control

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Squamous Cell Carcinoma TGLS = 2-3 ]

[ Squamous Cell Papilloma TGLS = 1-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 515

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 321

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868115

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Sarcoma TGLS = 1-4 ]

[ Squamous Cell Carcinoma TGLS = 3-3 ]

[ Squamous Cell Papilloma TGLS = 2-3,4-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 516

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 347

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868116

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

Multiple

[ Squamous Cell Carcinoma TGLS = 1-3,2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL3-2, CRUST NOT APPARENT ON MICRO

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 517

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 287

**DOSE:** MNNG100/COMPLETE

**DISP:** Natural Death

**HISTO:** 868117

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass

Squamous Cell Carcinoma

[ Sarcoma TGLS = 2-4 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 518

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868118

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 519

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868119

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-No Mass

Ulcer

Moderate

Ulcer

Moderate

[ Squamous Cell Carcinoma TGLS = 3-4,4-3 ]

[ Squamous Cell Papilloma TGLS = 1-5,6-4,5-3 ]

[ Ulcer TGLS = 7-7,8-8,9-6 ]

[ Ulcer TGLS = 7-7,8-8,9-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 520

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868120

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 521

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868121

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 522

**TRT#:** 12  
**DOSE:** MNNG100/COMPLETE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 363  
**HISTO:** 868122

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
Control  
SOA-No Mass  
SOA-Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Squamous Cell Carcinoma

Minimal  
Mild  
Chronic Active, Minimal  
Chronic Active, Mild

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 523

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 316

**DOSE:** MNNG100/COMPLETE

**DISP:** Natural Death

**HISTO:** 868123

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Acanthosis

Marked

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 524

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 862124

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 525

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 292

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 862125

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 526

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868126

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 527

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 293

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868127

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 528

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 335

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868128

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

Control

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 2-4 ]

[ Acanthosis TGLS = 2-4 ]

[ Ulcer TGLS = 1-6,3-3,4-5 ]

[ Ulcer TGLS = 1-6,3-3,4-5 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 529

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868129

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 530

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868130

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Squamous Cell Carcinoma

Multiple

[ Squamous Cell Carcinoma TGLS = 1-3,2-4 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 531

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868131

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

Multiple

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Carcinoma TGLS = 2-5.3-3 ]

[ Squamous Cell Papilloma TGLS = 1-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 532

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868132

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-No Mass

Ulcer

Mild

[ Squamous Cell Carcinoma TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3,3-5 ]

[ Ulcer TGLS = 3-5 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 533

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868133

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 534

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868134

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Carcinoma TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 535

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868135

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-No Mass

Ulcer

Marked

[ Inflammation TGLS = 5-8 ]

[ Inflammation TGLS = 5-8 ]

[ Squamous Cell Carcinoma TGLS = 3-5 ]

[ Squamous Cell Papilloma TGLS = 1-3,2-4,4-6,6-7 ]

[ Squamous Cell Papilloma TGLS = 1-3,2-4,4-6,6-7 ]

[ Ulcer TGLS = 5-8 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 536

**TRT#:** 12  
**DOSE:** MNNG100/COMPLETE

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 326  
**HISTO:** 868136

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
SOA-No Mass  
Control  
SOA-No Mass

Acanthosis  
Acanthosis  
Hemorrhage  
Inflammation  
Inflammation

Minimal  
Mild  
Moderate  
Chronic Active, Minimal  
Chronic Active, Mild

---

[ Hemorrhage TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 537

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868137

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 538

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 313

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868138

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

Ulcer

Moderate

[ Ulcer TGLS = 1-3,2-4,3-5 ]

[ Ulcer TGLS = 1-3,2-4,3-5 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 539

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 347

**DOSE:** MNNG100/COMPLETE

**DISP:** Moribund Sacrifice

**HISTO:** 868139

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass, Subcut Tiss

Sarcoma

SOA-No Mass

Ulcer

Mild

[ Sarcoma TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 540

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG100/COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868140

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 541

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868171

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 542

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868172

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 543

**TRT#:** 14  
**DOSE:** BPO 20 COMPLETE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 362  
**HISTO:** 868173

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation

Mild  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 544

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868174

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

[ Acanthosis TGLS = 1-3,2-3,4-5 ]

[ Ulcer TGLS = 3-4,4-5 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 545

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868175

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 546

**TRT#:** 14  
**DOSE:** BPO 20 COMPLETE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 362  
**HISTO:** 868176

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass

Acanthosis  
Acanthosis

Minimal  
Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 547

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868177

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 548

**TRT#:** 14  
**DOSE:** BPO 20 COMPLETE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 363  
**HISTO:** 868178

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation

Minimal  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 549

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868179

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 550

**TRT#:** 14  
**DOSE:** BPO 20 COMPLETE

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 321  
**HISTO:** 868180

---

**OBSERVATIONS**

\* Skin

Control  
SOA-No Mass  
Control  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation

Minimal  
Mild  
Chronic Active, Minimal  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 551

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868181

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 552

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868182

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 553

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868183

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 554

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868184

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 555

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868185

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 556

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868186

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 557

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868187

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 558

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868188

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 559

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868189

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 560

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868190

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 561

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868191

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 562

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868192

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 563

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868193

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 564

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868194

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 565

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868195

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 566

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868196

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 567

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868197

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 568

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868198

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 569

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** BPO 20 COMPLETE

**DISP:** Terminal Sacrifice

**HISTO:** 868199

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 570

**TRT#:** 14  
**DOSE:** BPO 20 COMPLETE

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 365  
**HISTO:** 868200

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass

Acanthosis  
Inflammation

Minimal  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 571

**TRT#:** 16  
**DOSE:** MNNG 100/BPO 20

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 362  
**HISTO:** 868231

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation

Minimal  
Minimal  
Chronic Active, Minimal  
Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 572

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868232

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 573

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868233

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 574

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868234

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 575

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868235

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 576

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868236

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 577

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868237

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 578

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868238

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 579

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 251

**DOSE:** MNNG 100/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868239

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Hair Follicle

Cyst

Hair Follicle

Cyst

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

Ulcer

Marked

Ulcer

Marked

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3 ]

[ Ulcer TGLS = 2-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 580

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868240

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 581

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868241

**OBSERVATIONS**

* Skin	Control	Acanthosis	Minimal
	Control	Acanthosis	Minimal
	SOA-No Mass	Acanthosis	Minimal
	SOA-No Mass	Acanthosis	Minimal
	Control	Inflammation	Chronic Active, Minimal
	Control	Inflammation	Chronic Active, Minimal
	SOA-No Mass	Inflammation	Chronic Active, Minimal
	SOA-No Mass	Inflammation	Chronic Active, Minimal
	SOA-Mass	Squamous Cell Papilloma	
	SOA-Mass	Squamous Cell Papilloma	

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 582

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868242

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 583

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868243

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 584

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868244

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 585

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868245

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 586

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868246

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 587

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868247

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

Control

Inflammation

Chronic Active, Minimal

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Keratoacanthoma

SOA-Mass

Keratoacanthoma

Control

Ulcer

Mild

Control

Ulcer

Mild

[ Keratoacanthoma TGLS = 1-3 ]

[ Keratoacanthoma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 588

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868248

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 589

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 176

**DOSE:** MNNG 100/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868249

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
	Acanthosis	Moderate
	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
	Inflammation	Chronic Active, Marked
	Inflammation	Chronic Active, Marked

[ Acanthosis TGLS = 1-3,2-4 ]

[ Acanthosis TGLS = 1-3,2-4 ]

[ Acanthosis TGLS = 1-3,2-4 ]

[ Acanthosis TGLS = 1-3,2-4 ]

[ Acanthosis TGLS = 1-3,2-4 ]

[ Acanthosis TGLS = 1-3,2-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 590

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868250

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 591

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868251

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 592

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868252

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 593

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868253

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 594

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868254

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 595

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868255

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 596

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868256

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 597

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868257

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 598

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868258

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 599

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868259

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 600

**TRT#:** 16

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868260

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 601

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868291

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 602

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868292

---

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 603

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868293

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
Subcut Tiss	Sarcoma	
Subcut Tiss	Sarcoma	

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 604

**TRT#:** 18  
**DOSE:** MNNG 500/BPO 20

**SEX:** Female  
**DISP:** Moribund Sacrifice

**DAY ON TEST:** 214  
**HISTO:** 868294

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-No Mass  
SOA-No Mass

Acanthosis  
Acanthosis  
Inflammation  
Inflammation  
Inflammation

Moderate  
Moderate  
Chronic Active, Mild  
Chronic Active, Mild  
Chronic Active, Moderate  
Chronic Active, Moderate

SOA-Mass, Subcut Tiss  
SOA-Mass, Subcut Tiss

Sarcoma  
Sarcoma  
Ulcer  
Ulcer

Moderate  
Moderate

[ Acanthosis TGLS = 1-2 ]  
[ Acanthosis TGLS = 1-2 ]  
[ Sarcoma TGLS = 2-3 ]  
[ Sarcoma TGLS = 2-3 ]  
[ Ulcer TGLS = 3-4 ]  
[ Ulcer TGLS = 3-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 605

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868295

---

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 606

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868296

---

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 607

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 219

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868297

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Keratoacanthoma

SOA-Mass

Keratoacanthoma

[ Keratoacanthoma TGLS = 1-3 ]

[ Keratoacanthoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 608

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868298

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 609

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868299

---

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 610

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868300

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 611

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868301

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 612

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868302

---

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 613

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 347

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868303

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Carcinoma	
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Ulcer TGLS = 2-2 ]

[ Ulcer TGLS = 2-2 ]

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL3, LESION NOT SEEN AT TRIM

Animal Note: TGL3, LESION NOT SEEN AT TRIM

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 614

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868304

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 615

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868305

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 616

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868306

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 617

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 154

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868307

---

**OBSERVATIONS**

\* Skin

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Inflammation TGLS = 2-4 ]

[ Inflammation TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 618

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868308

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 619

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 230

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868309

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-No Mass	Inflammation	Chronic Active, Marked
	Inflammation	Chronic Active, Marked
	Inflammation	Chronic Active, Marked
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate
	Ulcer	Marked
	Ulcer	Marked

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Ulcer TGLS = 1-4,2-3,4-5 ]

[ Ulcer TGLS = 1-4,2-3,4-5 ]

[ Ulcer TGLS = 1-4,2-3,4-5 ]

[ Ulcer TGLS = 1-4,2-3,4-5 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 620

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 241

**DOSE:** MNNG 500/BPO 20

**DISP:** Natural Death

**HISTO:** 868310

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 621

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868311

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 622

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868312

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 623

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 314

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868313

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 624

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 251

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868314

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 625

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868315

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 626

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 224

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868316

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Minimal
	Alopecia	
	Alopecia	
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

[ Alopecia TGLS = 1-3 ]

[ Alopecia TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 627

**TRT#:** 18  
**DOSE:** MNNG 500/BPO 20

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 365  
**HISTO:** 868317

---

**OBSERVATIONS**

\* Skin

SOA-No Mass  
SOA-No Mass  
SOA-Mass, Subcut Tiss  
SOA-Mass, Subcut Tiss

Acanthosis  
Acanthosis  
Sarcoma  
Sarcoma

Moderate  
Moderate

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 628

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868318

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 629

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 286

**DOSE:** MNNG 500/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868319

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 630

**TRT#:** 18

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 500/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868320

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 631

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868351

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 632

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 347

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868352

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

[ Acanthosis TGLS = 2-2,3-4 ]

[ Acanthosis TGLS = 2-2,3-4 ]

[ Acanthosis TGLS = 2-2,3-4 ]

[ Acanthosis TGLS = 2-2,3-4 ]

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 633

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868353

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 634

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 284

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868354

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

[ Ulcer TGLS = 1-5,2-3,3-4 ]

[ Ulcer TGLS = 1-5,2-3,3-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 635

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 326

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868355

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

Control

Inflammation

Chronic Active, Minimal

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

Subcut Tiss

Sarcoma

Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-2 ]

[ Sarcoma TGLS = 2-3 ]

[ Sarcoma TGLS = 1-2 ]

[ Sarcoma TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL 3 NOT FOUND AT TRIM

Animal Note: TGL 3 NOT FOUND AT TRIM

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 636

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868356

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 637

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868357

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 638

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868358

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 639

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 207

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868359

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 2-2 ]

[ Squamous Cell Papilloma TGLS = 2-2 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 640

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868360

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 641

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 293

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868361

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 642

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868362

---

**OBSERVATIONS**

\* Skin

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1,2-2,3 ]

[ Sarcoma TGLS = 1,2-2,3 ]

---

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 643

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868363

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 644

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868364

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 645

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 214

**DOSE:** MNNG1000/BPO 20

**DISP:** Natural Death

**HISTO:** 868365

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Moderate

Ulcer

Moderate

Ulcer

Moderate

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 646

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 266

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868366

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

Subcut Tiss

Sarcoma

Subcut Tiss

Sarcoma

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Sarcoma TGLS = 2-4 ]

[ Sarcoma TGLS = 2-4 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

Animal Note: TGL3-5, NCL, NORMAL GLAND IN LIP

Animal Note: TGL3-5, NCL, NORMAL GLAND IN LIP

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 647

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868367

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

\* Skin

\* Skin

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 648

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868368

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 649

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868369

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-Mass

Squamous Cell Carcinoma

Multiple

SOA-Mass

Squamous Cell Carcinoma

Multiple

[ Acanthosis TGLS = 4-2 ]

[ Acanthosis TGLS = 4-2 ]

[ Acanthosis TGLS = 4-2 ]

[ Acanthosis TGLS = 4-2 ]

[ Squamous Cell Carcinoma TGLS = 1-5,2-4,3-3 ]

[ Squamous Cell Carcinoma TGLS = 1-5,2-4,3-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 650

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 151

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868370

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Ulcer TGLS = 3-4 ]

[ Ulcer TGLS = 3-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 651

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868371

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 652

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 137

**DOSE:** MNNG1000/BPO 20

**DISP:** Natural Death

**HISTO:** 868372

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-Mass

Ulcer

Marked

SOA-Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 653

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868373

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 654

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868374

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 655

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 293

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868375

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1,2-3,4 ]

[ Sarcoma TGLS = 1,2-3,4 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 656

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 215

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868376

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Ulcer	Moderate
	Ulcer	Moderate

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3,3-4,4-5 ]

[ Ulcer TGLS = 2-3,3-4,4-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 657

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 48

**DOSE:** MNNG1000/BPO 20

**DISP:** Natural Death

**HISTO:** 868377

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

Acanthosis

Moderate

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 5-2,1-3,2-4,3-5,4-6 ]

[ Acanthosis TGLS = 5-2,1-3,2-4,3-5,4-6 ]

[ Acanthosis TGLS = 5-2,1-3,2-4,3-5,4-6 ]

[ Acanthosis TGLS = 5-2,1-3,2-4,3-5,4-6 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 658

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 169

**DOSE:** MNNG1000/BPO 20

**DISP:** Moribund Sacrifice

**HISTO:** 868378

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

SOA-No Mass

Squamous Cell Carcinoma

Multiple

SOA-No Mass

Squamous Cell Carcinoma

Multiple

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

Ulcer

Marked

Ulcer

Marked

[ Squamous Cell Carcinoma TGLS = 1,2-3,4 ]

[ Squamous Cell Carcinoma TGLS = 1,2-3,4 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

**PRIMARY CAUSE OF DEATH**

-

Animal Note: TGL1-3,IS AN ULCER, NOT A MASS

Animal Note: TGL1-3,IS AN ULCER, NOT A MASS

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 659

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868379

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 660

**TRT#:** 20

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/BPO 20

**DISP:** Terminal Sacrifice

**HISTO:** 868380

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Sarcoma TGLS = 1-2 ]

[ Sarcoma TGLS = 1-2 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 661

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 350

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868411

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-Mass, Subcut Tiss	Hemangioma	
SOA-Mass, Subcut Tiss	Hemangioma	
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Squamous Cell Carcinoma TGLS = 2-4 ]

[ Squamous Cell Carcinoma TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 662

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868412

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Marked
SOA-No Mass	Acanthosis	Marked
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate

[ Acanthosis TGLS = 4-5 ]

[ Acanthosis TGLS = 4-5 ]

[ Acanthosis TGLS = 4-5 ]

[ Acanthosis TGLS = 4-5 ]

[ Ulcer TGLS = 1-4,2-3,3-5 ]

[ Ulcer TGLS = 1-4,2-3,3-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 663

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868413

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

[ Acanthosis TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 664

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868414

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 665

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 315

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868415

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Ulcer	Mild
SOA-No Mass	Ulcer	Mild

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 666

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868416

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Papilloma TGLS = 1-3,2-5,3-4 ]

[ Squamous Cell Papilloma TGLS = 1-3,2-5,3-4 ]

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**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 667

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868417

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Marked
SOA-No Mass	Acanthosis	Marked
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Ulcer	Marked
	Ulcer	Marked

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Ulcer TGLS = 2-3 ]

[ Ulcer TGLS = 2-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 668

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 113

**DOSE:** MNNG 100/TPA 5

**DISP:** Natural Death

**HISTO:** 868418

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

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**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 669

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 300

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868419

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Ulcer	Marked
	Ulcer	Marked

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 670

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868420

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-2,2-3 ]

[ Ulcer TGLS = 1-2,2-3 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 671

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868421

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Acanthosis TGLS = 1-5 ]

[ Acanthosis TGLS = 1-5 ]

[ Squamous Cell Papilloma TGLS = 2-4,3-3 ]

[ Squamous Cell Papilloma TGLS = 2-4,3-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 672

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868422

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

[ Ulcer TGLS = 1-2 ]

[ Ulcer TGLS = 1-2 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 673

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868423

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Papilloma TGLS = 2-3; 7-5; 5-6; 6-7; 1-4 ]

[ Squamous Cell Papilloma TGLS = 2-3; 7-5; 5-6; 6-7; 1-4 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 674

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868424

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:50  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 675

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868425

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Papilloma TGLS = 4-3,2-4,5-5,1-6,7-7 ]

[ Squamous Cell Papilloma TGLS = 4-3,2-4,5-5,1-6,7-7 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 676

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 273

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868426

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Squamous Cell Carcinoma

SOA-No Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Squamous Cell Carcinoma TGLS = 1-5 ]

[ Squamous Cell Carcinoma TGLS = 1-5 ]

[ Squamous Cell Papilloma TGLS = 2-4,3-4,4-3 ]

[ Squamous Cell Papilloma TGLS = 2-4,3-4,4-3 ]

[ Ulcer TGLS = 5-2,1-5 ]

[ Ulcer TGLS = 5-2,1-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 677

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 286

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868427

---

**OBSERVATIONS**

\* Skin

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

[ Squamous Cell Carcinoma TGLS = 1-2 ]

[ Squamous Cell Carcinoma TGLS = 1-2 ]

[ Ulcer TGLS = 2-2 ]

[ Ulcer TGLS = 2-2 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 678

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868428

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 679

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868429

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 680

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868430

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

[ Acanthosis TGLS = 2-2,3-2 ]

[ Acanthosis TGLS = 2-2,3-2 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

Animal Note: FROM THE PRIMARY TUMOR IN TGL 1-3

Animal Note: THERE IS A SMALL PIECE OF CARCINOMA IN SOA-NM SLIDE

Animal Note: THERE IS A SMALL PIECE OF CARCINOMA IN SOA-NM SLIDE

Animal Note: FROM THE PRIMARY TUMOR IN TGL 1-3

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 681

**TRT#:** 22  
**DOSE:** MNNG 100/TPA 5

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 364  
**HISTO:** 868431

---

**OBSERVATIONS**

\* Skin

SOA-Mass	Acanthosis	Moderate
SOA-Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal

[ Acanthosis TGLS = 2-3 ]

[ Acanthosis TGLS = 1-4 ]

[ Acanthosis TGLS = 2-3 ]

[ Acanthosis TGLS = 1-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 682

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868432

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 683

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868433

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Acanthosis

Mild

Control

Inflammation

Chronic Active, Minimal

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-2 ]

[ Ulcer TGLS = 1-2 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 684

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868434

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Papilloma TGLS = 1-3; 2-4; 4-4; 3-5 ]

[ Squamous Cell Papilloma TGLS = 1-3; 2-4; 4-4; 3-5 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 685

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868435

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Keratoacanthoma

SOA-Mass

Keratoacanthoma

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Keratoacanthoma TGLS = 1-4,2-3 ]

[ Keratoacanthoma TGLS = 1-4,2-3 ]

[ Squamous Cell Papilloma TGLS = 1,2-3,4 ]

[ Squamous Cell Papilloma TGLS = 1,2-3,4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 686

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 300

**DOSE:** MNNG 100/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868436

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate
	Ulcer	Moderate
	Ulcer	Moderate

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

[ Ulcer TGLS = 1-3,2-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 687

**TRT#:** 22  
**DOSE:** MNNG 100/TPA 5

**SEX:** Female  
**DISP:** Terminal Sacrifice

**DAY ON TEST:** 365  
**HISTO:** 868437

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Squamous Cell Carcinoma TGLS = 2-2 ]

[ Squamous Cell Carcinoma TGLS = 2-2 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 688

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868438

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 689

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 326

**DOSE:** MNNG 100/TPA 5

**DISP:** Natural Death

**HISTO:** 868439

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 2-4,3-5,4-6 ]

[ Squamous Cell Papilloma TGLS = 2-4,3-5,4-6 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 690

**TRT#:** 22

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG 100/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868440

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Squamous Cell Papilloma TGLS = 1-3,2-4 ]

[ Squamous Cell Papilloma TGLS = 1-3,2-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 051117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 691

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868471

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Carcinoma	
SOA-No Mass	Squamous Cell Carcinoma	
SOA-No Mass	Squamous Cell Carcinoma	
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate

[ Squamous Cell Carcinoma TGLS = 1-4 ]

[ Squamous Cell Carcinoma TGLS = 3-5 ]

[ Squamous Cell Carcinoma TGLS = 1-4 ]

[ Squamous Cell Carcinoma TGLS = 3-5 ]

[ Squamous Cell Papilloma TGLS = 2-3 ]

[ Squamous Cell Papilloma TGLS = 2-3 ]

[ Ulcer TGLS = 4-2,3-5 ]

[ Ulcer TGLS = 4-2,3-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 692

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 133

**DOSE:** MNNG1000/TPA 5

**DISP:** Natural Death

**HISTO:** 868472

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Hair Follicle, SOA-No Mass

Cyst

Hair Follicle, SOA-No Mass

Cyst

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Squamous Cell Papilloma TGLS = 2-4 ]

[ Squamous Cell Papilloma TGLS = 2-4 ]

[ Ulcer TGLS = 3-3,1-5 ]

[ Ulcer TGLS = 3-3,1-5 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 693

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868473

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Squamous Cell Papilloma TGLS = 1-4,2-3 ]

[ Squamous Cell Papilloma TGLS = 1-4,2-3 ]

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 694

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868474

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 695

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 237

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868475

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

Control

Inflammation

Chronic Active, Minimal

Control

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

[ Acanthosis TGLS = 1-2 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 696

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 231

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868476

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked

[ Ulcer TGLS = 2-3,3-4 ]

[ Ulcer TGLS = 2-3,3-4 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 697

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 197

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868477

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-No Mass

Inflammation

Chronic Active, Marked

SOA-Mass, Subcut Tiss

Sarcoma

SOA-Mass, Subcut Tiss

Sarcoma

SOA-No Mass

Ulcer

Marked

SOA-No Mass

Ulcer

Marked

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

[ Ulcer TGLS = 2-4 ]

[ Ulcer TGLS = 2-4 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 698

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 362

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868478

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 699

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 251

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868479

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

Multiple

SOA-Mass

Squamous Cell Carcinoma

Multiple

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Squamous Cell Carcinoma TGLS = 1-3,2-4 ]

[ Squamous Cell Carcinoma TGLS = 1-3,2-4 ]

---

PRIMARY CAUSE OF DEATH

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 700

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868480

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 701

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868481

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 702

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 363

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868482

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 703

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 47

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868483

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

[ Ulcer TGLS = 1-2 ]

[ Ulcer TGLS = 1-2 ]

---

**PRIMARY CAUSE OF DEATH**

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 704

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868484

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Minimal
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 705

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868485

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-Mass

Squamous Cell Papilloma

SOA-Mass

Squamous Cell Papilloma

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

---

PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 706

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 195

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868486

**OBSERVATIONS**

\* Skin

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Marked

Inflammation

Chronic Active, Marked

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

Ulcer

Marked

Ulcer

Marked

[ Ulcer TGLS = 1-5,2-4,3-3,4-2 ]

[ Ulcer TGLS = 1-5,2-4,3-3,4-2 ]

[ Ulcer TGLS = 1-5,2-4,3-3,4-2 ]

[ Ulcer TGLS = 1-5,2-4,3-3,4-2 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 708

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 314

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868488

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Minimal

Control

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Acanthosis

Moderate

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 709

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 364

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868489

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Acanthosis

Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 710

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868490

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Marked
SOA-No Mass	Acanthosis	Marked
SOA-No Mass	Inflammation	Chronic Active, Moderate
SOA-No Mass	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Mild
	Inflammation	Chronic Active, Mild
SOA-No Mass	Ulcer	Moderate
SOA-No Mass	Ulcer	Moderate
	Ulcer	Mild
	Ulcer	Mild

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Ulcer TGLS = 1-4,2-3 ]

[ Ulcer TGLS = 1-4,2-3 ]

[ Ulcer TGLS = 1-4,2-3 ]

[ Ulcer TGLS = 1-4,2-3 ]

PRIMARY CAUSE OF DEATH

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 711

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868491

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Squamous Cell Papilloma TGLS = 1-3 ]

[ Squamous Cell Papilloma TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 712

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868492

---

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

---

**ANIMAL ID:** 713

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 258

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868493

---

**OBSERVATIONS**

\* Skin

Control

Acanthosis

Mild

Control

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

Subcut Tiss

Sarcoma

Subcut Tiss

Sarcoma

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

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PRIMARY CAUSE OF DEATH

-

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 714

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 314

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868494

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Mild
Control	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
SOA-No Mass	Acanthosis	Mild
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-No Mass	Inflammation	Chronic Active, Marked
SOA-No Mass	Ulcer	Marked
SOA-No Mass	Ulcer	Marked

[ Ulcer TGLS = 1-3 ]

[ Ulcer TGLS = 1-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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**ANIMAL ID:** 715

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 139

**DOSE:** MNNG1000/TPA 5

**DISP:** Natural Death

**HISTO:** 868495

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**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Minimal

SOA-No Mass

Inflammation

Chronic Active, Minimal

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**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 716

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 179

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868496

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
	Inflammation	Chronic Active, Moderate
	Inflammation	Chronic Active, Moderate
	Ulcer	Moderate
	Ulcer	Moderate

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Ulcer TGLS = 1-4,3-3 ]

[ Ulcer TGLS = 1-4,3-3 ]

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 717

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 266

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868497

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Moderate
Control	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Mild
Control	Inflammation	Chronic Active, Mild
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass	Squamous Cell Papilloma	
SOA-Mass	Squamous Cell Papilloma	

[ Acanthosis TGLS = 6-2 ]

[ Acanthosis TGLS = 6-2 ]

[ Acanthosis TGLS = 6-2 ]

[ Acanthosis TGLS = 6-2 ]

[ Sarcoma TGLS = 2,3,4,5-3,4,5,7 ]

[ Sarcoma TGLS = 2,3,4,5-3,4,5,7 ]

[ Squamous Cell Papilloma TGLS = 1-6 ]

[ Squamous Cell Papilloma TGLS = 1-6 ]

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 718

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 321

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868498

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Acanthosis

Mild

SOA-No Mass

Inflammation

Chronic Active, Moderate

SOA-No Mass

Inflammation

Chronic Active, Moderate

Inflammation

Chronic Active, Mild

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Carcinoma

SOA-Mass

Squamous Cell Carcinoma

SOA-No Mass

Ulcer

Moderate

SOA-No Mass

Ulcer

Moderate

Ulcer

Mild

Ulcer

Mild

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Squamous Cell Carcinoma TGLS = 1-3 ]

[ Ulcer TGLS = 3-4,4-5 ]

[ Ulcer TGLS = 3-4,4-5 ]

[ Ulcer TGLS = 3-4,4-5 ]

[ Ulcer TGLS = 3-4,4-5 ]

**PRIMARY CAUSE OF DEATH**

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 719

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 365

**DOSE:** MNNG1000/TPA 5

**DISP:** Terminal Sacrifice

**HISTO:** 868499

**OBSERVATIONS**

\* Skin

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Acanthosis

Marked

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-No Mass

Inflammation

Chronic Active, Mild

SOA-Mass

Squamous Cell Papilloma

Multiple

SOA-Mass

Squamous Cell Papilloma

Multiple

[ Acanthosis TGLS = 3-2 ]

[ Acanthosis TGLS = 3-2 ]

[ Squamous Cell Papilloma TGLS = 1,2-3,4 ]

[ Squamous Cell Papilloma TGLS = 1,2-3,4 ]

PRIMARY CAUSE OF DEATH

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\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 05117-05  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/CD-1 CRL

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:41:51  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**ANIMAL ID:** 720

**TRT#:** 24

**SEX:** Female

**DAY ON TEST:** 341

**DOSE:** MNNG1000/TPA 5

**DISP:** Moribund Sacrifice

**HISTO:** 868500

**OBSERVATIONS**

\* Skin

Control	Acanthosis	Minimal
Control	Acanthosis	Minimal
SOA-No Mass	Acanthosis	Moderate
SOA-No Mass	Acanthosis	Moderate
Control	Inflammation	Chronic Active, Minimal
Control	Inflammation	Chronic Active, Minimal
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-No Mass	Inflammation	Chronic Active, Mild
SOA-Mass, Subcut Tiss	Sarcoma	
SOA-Mass, Subcut Tiss	Sarcoma	

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Acanthosis TGLS = 2-2 ]

[ Sarcoma TGLS = 1-3 ]

[ Sarcoma TGLS = 1-3 ]

PRIMARY CAUSE OF DEATH

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**\*\* END OF REPORT \*\***

\* PROTOCOL REQUIRED TISSUE