

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

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

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:42:13  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

CAS Number: INIT/PROM

Date Report Requested: 10/19/2014  
 Time Report Requested: 17:42:13  
 First Dose M/F: NA / NA  
 Lab: BAT

CD-1 CRL Mouse MALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	TPA 5 COMPLETE	MNNG100/COMPLET E
<b>Disposition Summary</b>						
Animals Initially In Study	30	30	30	30	30	30
Early Deaths						
Moribund Sacrifice	3	1	12	19	11	15
Natural Death		1	1	2	2	1
Survivors						
Terminal Sacrifice	27	28	17	9	17	14
Animals Examined Microscopically	30	30	30	30	30	30
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						
HEMATOPOIETIC SYSTEM						
None						
INTEGUMENTARY SYSTEM						
Skin	(27)	(22)	(15)	(14)	(9)	(7)
Squamous Cell Carcinoma				1 (7%)	1 (11%)	
Squamous Cell Carcinoma, Metastatic, Skin						1 (14%)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

**Experiment Number:** 05117-05  
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**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:42:13  
**First Dose M/F:** NA / NA  
**Lab:** BAT

CD-1 CRL Mouse MALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	TPA 5 COMPLETE	MNNG100/COMPLET E
Subcut Tiss, Sarcoma				1 (7%)		
Skin, Control	(0)	(0)	(0)	(2)	(12)	(16)
Skin, SOA-Mass	(0)	(1)	(4)	(13)	(5)	(21)
Keratoacanthoma						
Keratoacanthoma, Multiple						
Squamous Cell Carcinoma			1 (25%)	3 (23%)		9 (43%)
Squamous Cell Carcinoma, Multiple				1 (8%)		5 (24%)
Squamous Cell Papilloma				2 (15%)	3 (60%)	6 (29%)
Squamous Cell Papilloma, Multiple					1 (20%)	
Subcut Tiss, Hemangioma						
Subcut Tiss, Hemangiosarcoma						
Subcut Tiss, Sarcoma			2 (50%)	7 (54%)		6 (29%)
Skin, SOA-No Mass	(4)	(8)	(18)	(23)	(30)	(29)
Subcut Tiss, Fibroma						1 (3%)

MUSCULOSKELETAL SYSTEM

None

NERVOUS SYSTEM

None

RESPIRATORY SYSTEM

None

SPECIAL SENSES SYSTEM

None

URINARY SYSTEM

None

SYSTEMIC LESIONS

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:42:13  
**First Dose M/F:** NA / NA  
**Lab:** BAT

CD-1 CRL Mouse MALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	TPA 5 COMPLETE	MNNG100/COMPLET E
Multiple Organ	*(30)	*(30)	*(30)	*(30)	*(30)	*(30)
Lymphoma Malignant Lymphocytic						1 (3%)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

CAS Number: INIT/PROM

Date Report Requested: 10/19/2014  
 Time Report Requested: 17:42:13  
 First Dose M/F: NA / NA  
 Lab: BAT

CD-1 CRL Mouse MALE	BPO 20 COMPLETE	MNNG 100/BPO 20	MNNG 500/BPO 20	MNNG1000/BPO 20	MNNG 100/TPA 5	MNNG1000/TPA 5
<b>Disposition Summary</b>						
Animals Initially In Study	30	30	30	30	30	30
Early Deaths						
Moribund Sacrifice	9	3	9	17	17	22
Natural Death	1	1	3	5	3	4
Survivors						
Terminal Sacrifice	20	26	18	8	10	4
Animals Examined Microscopically	30	30	30	30	30	30

ALIMENTARY SYSTEM

None

CARDIOVASCULAR SYSTEM

None

ENDOCRINE SYSTEM

None

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

None

HEMATOPOIETIC SYSTEM

None

INTEGUMENTARY SYSTEM

Skin	(13)	(10)	(7)	(14)	(14)	(12)
Squamous Cell Carcinoma						2 (17%)
Squamous Cell Carcinoma, Metastatic, Skin						2 (17%)
Subcut Tiss, Sarcoma						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

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

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:42:13  
**First Dose M/F:** NA / NA  
**Lab:** BAT

CD-1 CRL Mouse MALE	BPO 20 COMPLETE	MNNG 100/BPO 20	MNNG 500/BPO 20	MNNG1000/BPO 20	MNNG 100/TPA 5	MNNG1000/TPA 5
Skin, Control	(8)	(4)	(2)	(11)	(21)	(15)
Skin, SOA-Mass	(1)	(1)	(5)	(16)	(10)	(20)
Keratoacanthoma						4 (20%)
Keratoacanthoma, Multiple						2 (10%)
Squamous Cell Carcinoma				8 (50%)		8 (40%)
Squamous Cell Carcinoma, Multiple					2 (20%)	
Squamous Cell Papilloma		2 (200%)	2 (40%)	6 (38%)	8 (80%)	12 (60%)
Squamous Cell Papilloma, Multiple					10 (100%)	6 (30%)
Subcut Tiss, Hemangioma				2 (13%)		
Subcut Tiss, Hemangiosarcoma						2 (10%)
Subcut Tiss, Sarcoma			8 (160%)	18 (113%)	2 (20%)	22 (110%)
Skin, SOA-No Mass	(25)	(23)	(27)	(28)	(30)	(29)
Subcut Tiss, Fibroma						
<b>MUSCULOSKELETAL SYSTEM</b>						
None						
<b>NERVOUS SYSTEM</b>						
None						
<b>RESPIRATORY SYSTEM</b>						
None						
<b>SPECIAL SENSES SYSTEM</b>						
None						
<b>URINARY SYSTEM</b>						
None						
<b>SYSTEMIC LESIONS</b>						
Multiple Organ	*(30)	*(30)	*(30)	*(30)	*(30)	*(30)
Lymphoma Malignant Lymphocytic						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

**CAS Number:** INIT/PROM

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

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**CD-1 CRL Mouse MALE**

**BPO 20 COMPLETE**

**MNNG 100/BPO 20**

**MNNG 500/BPO 20**

**MNNG1000/BPO 20**

**MNNG 100/TPA 5**

**MNNG1000/TPA 5**

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a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

CAS Number: INIT/PROM

Date Report Requested: 10/19/2014  
 Time Report Requested: 17:42:13  
 First Dose M/F: NA / NA  
 Lab: BAT

CD-1 CRL Mouse MALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	TPA 5 COMPLETE	MNNG100/COMPLET E
<b>Tumor Summary for MALE</b>						
Total Animals with Primary Neoplasms (b)			3	13	5	23
Total Primary Neoplasms			3	15	5	28
Total Animals with Benign Neoplasms				2	4	7
Total Benign Neoplasms				2	4	7
Total Animals with Malignant Neoplasms			3	12	1	21
Total Malignant Neoplasms			3	13	1	21
Total Animals with Metastatic Neoplasms						1
Total Metastatic Neoplasms						1
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain - Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically



**Experiment Number:** 05117-05  
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**Route:** SKIN APPLICATION  
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**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:42:13  
**First Dose M/F:** NA / NA  
**Lab:** BAT

CD-1 CRL Mouse MALE	BPO 20 COMPLETE	MNNG 100/BPO 20	MNNG 500/BPO 20	MNNG1000/BPO 20	MNNG 100/TPA 5	MNNG1000/TPA 5
<b>Tumor Summary for MALE</b>						
<b>Total Animals with Primary Neoplasms (b)</b>		1	5	16	10	20
<b>Total Primary Neoplasms</b>		2	10	34	22	58
<b>Total Animals with Benign Neoplasms</b>		1	1	4	9	10
<b>Total Benign Neoplasms</b>		2	2	8	18	24
<b>Total Animals with Malignant Neoplasms</b>			4	13	2	17
<b>Total Malignant Neoplasms</b>			8	26	4	34
<b>Total Animals with Metastatic Neoplasms</b>						1
<b>Total Metastatic Neoplasms</b>						2
<b>Total Animals with Malignant Neoplasms Uncertain Primary Site</b>						
<b>Total Animals with Neoplasms Uncertain - Benign or Malignant</b>						
<b>Total Uncertain Neoplasms</b>						

\*\*\*END OF MALE DATA\*\*\*

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

CAS Number: INIT/PROM

Date Report Requested: 10/19/2014  
 Time Report Requested: 17:42:13  
 First Dose M/F: NA / NA  
 Lab: BAT

CD-1 CRL Mouse FEMALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	TPA 5 COMPLETE	MNNG100/COMPLET E
<b>Disposition Summary</b>						
Animals Initially In Study	30	30	30	30	30	30
Early Deaths						
Moribund Sacrifice	2	1	2	13	4	9
Natural Death	1		1	2	1	2
Survivors						
Terminal Sacrifice	27	29	26	15	23	19
Other			1		2	
Animals Examined Microscopically	30	30	29	30	28	30
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						
HEMATOPOIETIC SYSTEM						
None						
INTEGUMENTARY SYSTEM						
Skin	(29)	(21)	(10)	(8)	(4)	(4)
Squamous Cell Papilloma						1 (25%)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

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

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:42:13  
**First Dose M/F:** NA / NA  
**Lab:** BAT

CD-1 CRL Mouse FEMALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	TPA 5 COMPLETE	MNNG100/COMPLET E
Subcut Tiss, Sarcoma						
Skin, Control	(0)	(0)	(4)	(2)	(18)	(22)
Skin, SOA-Mass	(0)	(0)	(7)	(9)	(5)	(20)
Keratoacanthoma						
Squamous Cell Carcinoma			2 (29%)	3 (33%)		11 (55%)
Squamous Cell Carcinoma, Multiple				1 (11%)		4 (20%)
Squamous Cell Papilloma			1 (14%)	2 (22%)	4 (80%)	4 (20%)
Squamous Cell Papilloma, Multiple			1 (14%)			5 (25%)
Subcut Tiss, Fibroma			1 (14%)			
Subcut Tiss, Hemangioma						
Subcut Tiss, Sarcoma			2 (29%)	5 (56%)		4 (20%)
Skin, SOA-No Mass	(2)	(9)	(14)	(26)	(28)	(27)
Squamous Cell Carcinoma						
Squamous Cell Carcinoma, Multiple						
Subcut Tiss, Sarcoma				1 (4%)		
<b>MUSCULOSKELETAL SYSTEM</b>						
None						
<b>NERVOUS SYSTEM</b>						
None						
<b>RESPIRATORY SYSTEM</b>						
None						
<b>SPECIAL SENSES SYSTEM</b>						
None						
<b>URINARY SYSTEM</b>						
None						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:42:13  
**First Dose M/F:** NA / NA  
**Lab:** BAT

CD-1 CRL Mouse FEMALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	TPA 5 COMPLETE	MNNG100/COMPLET E
SYSTEMIC LESIONS						
Multiple Organ	*(30)	*(30)	*(29)	*(30)	*(28)	*(30)
Lymphoma Malignant Lymphocytic					1 (4%)	

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014  
 Time Report Requested: 17:42:13  
 First Dose M/F: NA / NA  
 Lab: BAT

CD-1 CRL Mouse FEMALE	BPO 20 COMPLETE	MNNG 100/BPO 20	MNNG 500/BPO 20	MNNG1000/BPO 20	MNNG 100/TPA 5	MNNG1000/TPA 5
<b>Disposition Summary</b>						
Animals Initially In Study	30	30	30	30	30	30
Early Deaths						
Moribund Sacrifice	1	2	9	10	6	13
Natural Death			1	3	2	2
Survivors						
Terminal Sacrifice	29	28	20	17	22	14
Other						1
Animals Examined Microscopically	30	30	30	30	30	29
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						
HEMATOPOIETIC SYSTEM						
None						
INTEGUMENTARY SYSTEM						
Skin	(9)	(4)	(5)	(8)	(3)	(5)
Squamous Cell Papilloma						
Subcut Tiss, Sarcoma			2 (40%)	4 (50%)		2 (40%)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

CAS Number: INIT/PROM

Date Report Requested: 10/19/2014  
 Time Report Requested: 17:42:13  
 First Dose M/F: NA / NA  
 Lab: BAT

CD-1 CRL Mouse FEMALE	BPO 20 COMPLETE	MNNG 100/BPO 20	MNNG 500/BPO 20	MNNG1000/BPO 20	MNNG 100/TPA 5	MNNG1000/TPA 5
Skin, Control	(5)	(4)	(12)	(7)	(10)	(12)
Skin, SOA-Mass	(0)	(3)	(12)	(12)	(16)	(14)
Keratoacanthoma		2 (67%)	2 (17%)		2 (13%)	
Squamous Cell Carcinoma			6 (50%)	6 (50%)	10 (63%)	6 (43%)
Squamous Cell Carcinoma, Multiple				2 (17%)		2 (14%)
Squamous Cell Papilloma		4 (133%)	12 (100%)	4 (33%)	10 (63%)	14 (100%)
Squamous Cell Papilloma, Multiple					16 (100%)	4 (29%)
Subcut Tiss, Fibroma						
Subcut Tiss, Hemangioma					2 (13%)	
Subcut Tiss, Sarcoma			6 (50%)	12 (100%)		6 (43%)
Skin, SOA-No Mass	(21)	(28)	(28)	(26)	(29)	(29)
Squamous Cell Carcinoma					2 (7%)	2 (7%)
Squamous Cell Carcinoma, Multiple				2 (8%)		
Subcut Tiss, Sarcoma						
<b>MUSCULOSKELETAL SYSTEM</b>						
None						
<b>NERVOUS SYSTEM</b>						
None						
<b>RESPIRATORY SYSTEM</b>						
None						
<b>SPECIAL SENSES SYSTEM</b>						
None						
<b>URINARY SYSTEM</b>						
None						
<b>SYSTEMIC LESIONS</b>						
Multiple Organ	*(30)	*(30)	*(30)	*(30)	*(30)	*(29)

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

**CAS Number:** INIT/PROM

**Date Report Requested:** 10/19/2014  
**Time Report Requested:** 17:42:13  
**First Dose M/F:** NA / NA  
**Lab:** BAT

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<b>CD-1 CRL Mouse FEMALE</b>	<b>BPO 20 COMPLETE</b>	<b>MNNG 100/BPO 20</b>	<b>MNNG 500/BPO 20</b>	<b>MNNG1000/BPO 20</b>	<b>MNNG 100/TPA 5</b>	<b>MNNG1000/TPA 5</b>
Lymphoma Malignant Lymphocytic						

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a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically

Experiment Number: 05117-05  
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 Route: SKIN APPLICATION  
 Species/Strain: Mouse/CD-1 CRL

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)**

Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

CAS Number: INIT/PROM

Date Report Requested: 10/19/2014  
 Time Report Requested: 17:42:13  
 First Dose M/F: NA / NA  
 Lab: BAT

CD-1 CRL Mouse FEMALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	TPA 5 COMPLETE	MNNG100/COMPLET E
<b>Tumor Summary for FEMALE</b>						
Total Animals with Primary Neoplasms (b)			6	10	5	19
Total Primary Neoplasms			7	12	5	29
Total Animals with Benign Neoplasms			3	2	4	9
Total Benign Neoplasms			3	2	4	10
Total Animals with Malignant Neoplasms			4	9	1	17
Total Malignant Neoplasms			4	10	1	19
Total Animals with Metastatic Neoplasms						
Total Metastatic Neoplasms						
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain - Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically



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

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS  
ABRIDGED) (a)**

Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)

CAS Number: INIT/PROM

Date Report Requested: 10/19/2014  
Time Report Requested: 17:42:13  
First Dose M/F: NA / NA  
Lab: BAT

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CD-1 CRL Mouse FEMALE	BPO 20 COMPLETE	MNNG 100/BPO 20	MNNG 500/BPO 20	MNNG1000/BPO 20	MNNG 100/TPA 5	MNNG1000/TPA 5
<b>Tumor Summary for FEMALE</b>						
Total Animals with Primary Neoplasms (b)		3	13	13	15	15
Total Primary Neoplasms		6	28	30	42	36
Total Animals with Benign Neoplasms		3	7	2	13	9
Total Benign Neoplasms		6	14	4	30	18
Total Animals with Malignant Neoplasms			6	12	6	8
Total Malignant Neoplasms			14	26	12	18
Total Animals with Metastatic Neoplasms						
Total Metastatic Neoplasms						
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain - Benign or Malignant						
Total Uncertain Neoplasms						

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**\*\* END OF REPORT \*\***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

\* Number of animals with any tissue examined microscopically