

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:06
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

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	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
CD-1 CRL Mouse Male VEHICLE CONTROL		3	3	3	3	3	3	1	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
		1	6	6	6	6	6	5	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
	ANIMAL ID	3	2	2	2	2	2	8	2	3	3	3	7	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3		
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin +
 Skin, SOA-No Mass +

Musculoskeletal System

NONE

Nervous System

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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 First Dose M/F: NA / NA
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DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CD-1 CRL Mouse Male	3	3	3	3	3	3	3	1	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
VEHICLE CONTROL	1	6	6	6	6	6	6	5	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
ANIMAL ID	3	2	2	2	2	2	2	8	2	3	3	3	7	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	5
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

NONE																															
Respiratory System																															
NONE																															
Special Senses System																															
NONE																															
Urinary System																															
NONE																															
SYSTEMIC LESIONS																															
Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

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First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
VEHICLE CONTROL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin 27

Skin, SOA-No Mass 4

Musculoskeletal System

NONE

Nervous System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
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BLANK ..Not examined microscopically

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Time Report Requested: 17:43:06
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
VEHICLE CONTROL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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Time Report Requested: 17:43:06
First Dose M/F: NA / NA
Lab: BAT

		DAY ON TEST																												
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CD-1 CRL Mouse Male		3	3	3	3	3	3	1	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	
	MNNG 100/ACETONE	6	6	6	6	6	6	3	6	6	6	6	6	6	6	6	6	6	6	2	6	6	6	6	6	6	6	6	6	
	ANIMAL ID	2	2	2	2	2	2	9	2	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	6	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

Nervous System

NONE
Respiratory System

NONE
Special Senses System

NONE
Urinary System

NONE
SYSTEMIC LESIONS

Multiple Organ +

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
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Time Report Requested: 17:43:06
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG 100/ACETONE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin	22
Skin, SOA-Mass	1
Skin, SOA-No Mass	8

Musculoskeletal System

NONE

Nervous System

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
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Time Report Requested: 17:43:06
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG 100/ACETONE

ANIMAL ID

*TOTALS

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
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 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:06
 First Dose M/F: NA / NA
 Lab: BAT

	DAY ON TEST																													
CD-1 CRL Mouse Male MNNG 500/ACETONE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	3	3	3	3	3	3	0	3	3	1	3	3	1	3	2	3	3	3	2	2	2	3	3	3	3	3	3	1	2	3
	6	6	6	1	4	6	5	6	6	7	6	6	9	6	9	6	6	0	3	5	2	5	6	6	6	6	6	7	5	6
	2	2	2	4	1	2	8	3	3	6	3	3	5	3	4	4	4	2	8	9	4	7	4	5	5	5	5	5	7	5
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	9	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

+ +

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
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 BLANK ..Not examined microscopically

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Species/Strain: Mouse/CD-1 CRL

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CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:06
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG 500/ACETONE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-------------------------|----|
| Skin | 15 |
| Skin, SOA-Mass | 4 |
| Squamous Cell Carcinoma | 1 |
| Subcut Tiss, Sarcoma | 2 |
| Skin, SOA-No Mass | 18 |

Musculoskeletal System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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Species/Strain: Mouse/CD-1 CRL

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CAS Number: INIT/PROM

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

DAY ON TEST

CD-1 CRL Mouse Male
MNNG 500/ACETONE

ANIMAL ID

*TOTALS

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor
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 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:06
 First Dose M/F: NA / NA
 Lab: BAT

| CD-1 CRL Mouse Male
MNNG1000/ACETONE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 3 | 1 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 3 | |
| | 6 | 7 | 9 | 7 | 9 | 8 | 6 | 9 | 6 | 6 | 3 | 9 | 0 | 3 | 7 | 6 | 3 | 8 | 0 | 7 | 6 | 6 | 6 | 1 | 7 | 8 | 7 | 1 | 1 | 6 |
| | 2 | 5 | 2 | 5 | 2 | 9 | 2 | 5 | 3 | 3 | 0 | 9 | 7 | 6 | 5 | 4 | 5 | 0 | 6 | 9 | 4 | 4 | 5 | 5 | 1 | 7 | 5 | 3 | 4 | 5 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|--|--|---|--|---|--|---|---|--|---|---|---|---|--|--|---|---|---|--|--|---|--|--|---|---|---|--|---|---|
| Skin | | | + | | + | | + | + | | + | + | + | + | | | + | + | | | | | | | | | | | + | + |
| Squamous Cell Carcinoma | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Subcut Tiss, Sarcoma | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Skin, Control | | | | | + | | + | | | | | | | | | | | | | | | | | | | | | | |
| Skin, SOA-Mass | | | + | | + | | + | + | | + | | | | | | | + | + | | | + | | | + | + | + | | + | + |
| Squamous Cell Carcinoma | | | | | | | | X | | | | | | | | | X | | | | | | | X | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:07
 First Dose M/F: NA / NA
 Lab: BAT

| CD-1 CRL Mouse Male
MNNG1000/ACETONE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 3 | 3 | 2 | 3 | 1 | 3 | 3 | 3 | 2 | 2 | 1 | 1 | 1 | 3 | | |
| | 6 | 7 | 9 | 7 | 9 | 8 | 6 | 9 | 6 | 6 | 3 | 9 | 0 | 3 | 7 | 6 | 3 | 8 | 0 | 7 | 6 | 6 | 6 | 1 | 7 | 8 | 7 | 1 | 1 | 6 | |
| | 2 | 5 | 2 | 5 | 2 | 9 | 2 | 5 | 3 | 3 | 0 | 9 | 7 | 6 | 5 | 4 | 5 | 0 | 6 | 9 | 4 | 4 | 5 | 5 | 1 | 7 | 5 | 3 | 4 | 5 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| Squamous Cell Carcinoma, Multiple | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | X | | | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Subcut Tiss, Sarcoma | | | | | X | | X | | | | | | | | | X | | | | | | | X | X | X | | | X | | | |
| Skin, SOA-No Mass | + | + | | + | + | + | + | + | | | + | + | + | + | | + | + | | + | | + | + | + | + | + | + | + | + | + | + | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:07
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG1000/ACETONE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-----------------------------------|----|
| Skin | 14 |
| Squamous Cell Carcinoma | 1 |
| Subcut Tiss, Sarcoma | 1 |
| Skin, Control | 2 |
| Skin, SOA-Mass | 13 |
| Squamous Cell Carcinoma | 3 |
| Squamous Cell Carcinoma, Multiple | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:07
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG1000/ACETONE

ANIMAL ID

*TOTALS

| | |
|-------------------------|----|
| Squamous Cell Papilloma | 2 |
| Subcut Tiss, Sarcoma | 7 |
| Skin, SOA-No Mass | 23 |

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

| | |
|----------------|----|
| Multiple Organ | 30 |
|----------------|----|

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:07
First Dose M/F: NA / NA
Lab: BAT

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Male
TPA 5 COMPLETE | 1 | 3 | 3 | 0 | 3 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | | |
| | 9 | 2 | 6 | 6 | 6 | 5 | 6 | 5 | 6 | 0 | 6 | 6 | 6 | 6 | 6 | 9 | 6 | 9 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 9 | |
| | 5 | 0 | 2 | 3 | 2 | 7 | 2 | 7 | 3 | 5 | 3 | 3 | 3 | 4 | 6 | 5 | 4 | 5 | 4 | 4 | 5 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 0 | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, Control | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, SOA-Mass | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:07
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CD-1 CRL Mouse Male | 1 | 3 | 3 | 0 | 3 | 3 | 3 | 2 | 3 | 0 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 2 |
| TPA 5 COMPLETE | 9 | 2 | 6 | 6 | 6 | 5 | 6 | 5 | 6 | 0 | 6 | 6 | 6 | 6 | 6 | 9 | 6 | 9 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 3 | 6 |
| | 5 | 0 | 2 | 3 | 2 | 7 | 2 | 7 | 3 | 5 | 3 | 3 | 3 | 4 | 6 | 5 | 4 | 5 | 4 | 4 | 5 | 6 | 5 | 5 | 5 | 5 | 1 | 5 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Skin, SOA-No Mass | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:07
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
TPA 5 COMPLETE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-----------------------------------|----|
| Skin | 9 |
| Squamous Cell Carcinoma | 1 |
| Skin, Control | 12 |
| Skin, SOA-Mass | 5 |
| Squamous Cell Papilloma | 3 |
| Squamous Cell Papilloma, Multiple | 1 |
| Skin, SOA-No Mass | 30 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:07
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
TPA 5 COMPLETE

ANIMAL ID

*TOTALS

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:07
 First Dose M/F: NA / NA
 Lab: BAT

| CD-1 CRL Mouse Male
MNNG100/COMPLETE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 0 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 8 | 0 | 6 | 4 | 6 | 4 | 6 | 6 | 6 | 3 | 6 | 2 | 3 | 4 | 1 | 3 | 6 | 2 | 4 | 9 | 6 | 1 | 6 | 6 | 6 | 4 | 6 | 4 | 6 |
| | 5 | 6 | 2 | 1 | 2 | 8 | 2 | 2 | 3 | 0 | 3 | 7 | 6 | 8 | 9 | 5 | 3 | 0 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 8 | 5 | 8 |
| Squamous Cell Carcinoma, Multiple | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Squamous Cell Papilloma | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Subcut Tiss, Sarcoma | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Skin, SOA-No Mass | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| Lymphoma Malignant Lymphocytic | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Subcut Tiss, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant Lymphocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:07
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG100/COMPLETE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|---|----|
| Skin | 7 |
| Squamous Cell Carcinoma, Metastatic, Skin | 1 |
| Skin, Control | 16 |
| Lymphoma Malignant Lymphocytic | 1 |
| Skin, SOA-Mass | 21 |
| Squamous Cell Carcinoma | 9 |
| Squamous Cell Carcinoma, Multiple | 5 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:07
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG100/COMPLETE

ANIMAL ID

***TOTALS**

| | |
|--------------------------------|----|
| Squamous Cell Papilloma | 6 |
| Subcut Tiss, Sarcoma | 6 |
| Skin, SOA-No Mass | 29 |
| Lymphoma Malignant Lymphocytic | 1 |
| Subcut Tiss, Fibroma | 1 |

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

| | |
|--------------------------------|----|
| Multiple Organ | 30 |
| Lymphoma Malignant Lymphocytic | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:07
 First Dose M/F: NA / NA
 Lab: BAT

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Male | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | BPO 20 COMPLETE | 1 | 5 | 6 | 3 | 8 | 5 | 6 | 6 | 3 | 6 | 6 | 7 | 6 | 6 | 6 | 1 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 3 | 8 | 2 | 5 | 5 | 6 | 2 | 2 | 4 | 2 | 2 | 3 | 3 | 3 | 5 | 3 | 3 | 4 | 8 | 4 | 4 | 4 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|--|---|---|---|---|--|
| Skin | | + | + | | + | + | | | | + | | | | | + | | | | | + | + | | | | + | | + | + | + | | | | | | |
| Skin, Control | | | | | + | | | | | + | | + | + | | + | | + | + | | | | | | | | | | | | | | | | | |
| Skin, SOA-Mass | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | |
| Skin, SOA-No Mass | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | | + | | + | + | + | | |

Musculoskeletal System

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:08
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Male | 3 | 2 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| BPO 20 COMPLETE | 1 | 5 | 6 | 3 | 8 | 5 | 6 | 6 | 3 | 6 | 6 | 7 | 6 | 6 | 6 | 1 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 3 | 6 | 6 | 6 | 6 | 6 |
| ANIMAL ID | 3 | 8 | 2 | 5 | 5 | 6 | 2 | 2 | 4 | 2 | 2 | 2 | 3 | 3 | 3 | 5 | 3 | 3 | 4 | 8 | 4 | 4 | 4 | 1 | 5 | 5 | 5 | 5 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

NONE
Nervous System
 NONE
Respiratory System
 NONE
Special Senses System
 NONE
Urinary System
 NONE
SYSTEMIC LESIONS
 Multiple Organ +

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:08
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
BPO 20 COMPLETE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-------------------|----|
| Skin | 13 |
| Skin, Control | 8 |
| Skin, SOA-Mass | 1 |
| Skin, SOA-No Mass | 25 |

Musculoskeletal System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:08
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
BPO 20 COMPLETE

ANIMAL ID

*TOTALS

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:08
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CD-1 CRL Mouse Male | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| MNNG 100/BPO 20 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 2 | 6 | 7 | 6 | 6 | 1 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 4 | 4 | 4 | 0 | 4 | 2 | 4 | 4 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, Control | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, SOA-Mass | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, SOA-No Mass | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:08
First Dose M/F: NA / NA
Lab: BAT

| CD-1 CRL Mouse Male
MNNG 100/BPO 20 | DAY ON TEST | | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 2 | 6 | 7 | 6 | 6 | 1 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 4 | 4 | 4 | 0 | 4 | 2 | 4 | 4 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | | |

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

+ +

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:08
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG 100/BPO 20

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-------------------------|----|
| Skin | 10 |
| Skin, Control | 4 |
| Skin, SOA-Mass | 1 |
| Squamous Cell Papilloma | 1 |
| Skin, SOA-No Mass | 23 |

Musculoskeletal System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:08
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG 100/BPO 20

ANIMAL ID

*TOTALS

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

Experiment Number: 05117-05

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/19/2014

Test Type: INIT/PROMOT

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

Time Report Requested: 17:43:08

Route: SKIN APPLICATION

CAS Number: INIT/PROM

First Dose M/F: NA / NA

Species/Strain: Mouse/CD-1 CRL

Lab: BAT

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Male | 3 | 2 | 2 | 3 | 3 | 0 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| MNNG 500/BPO 20 | 6 | 1 | 8 | 6 | 6 | 4 | 6 | 6 | 7 | 6 | 6 | 6 | 6 | 6 | 7 | 3 | 6 | 4 | 6 | 4 | 6 | 4 | 6 | 6 | 6 | 8 | 6 | 6 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| ANIMAL ID | 2 | 5 | 4 | 2 | 2 | 6 | 2 | 2 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 6 | 4 | 1 | 4 | 6 | 3 | 4 | 7 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Skin | | | | + | | | | | | | + | | | + | | | | | | + | | | + | | | | | | | | | | | | | | | | | + | |
| Skin, Control | | | | + | | | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, SOA-Mass | + | + | | | | | | | | | | | | | + | | | | | | | | + | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Sarcoma | X | X | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, SOA-No Mass | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:08
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG 500/BPO 20

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-------------------------|----|
| Skin | 7 |
| Skin, Control | 2 |
| Skin, SOA-Mass | 5 |
| Squamous Cell Papilloma | 1 |
| Subcut Tiss, Sarcoma | 4 |
| Skin, SOA-No Mass | 27 |

Musculoskeletal System

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:08
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG 500/BPO 20

ANIMAL ID

*TOTALS

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:08
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Male
MNNG1000/BPO 20 | 1 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 3 | 3 |
| | 7 | 6 | 0 | 9 | 2 | 4 | 9 | 0 | 5 | 9 | 6 | 5 | 2 | 3 | 2 | 0 | 6 | 6 | 6 | 1 | 2 | 4 | 7 | 9 | 8 | 6 | 9 | 7 | 6 | 6 |
| | 5 | 2 | 6 | 6 | 7 | 8 | 7 | 0 | 7 | 7 | 3 | 8 | 4 | 8 | 9 | 0 | 3 | 4 | 4 | 9 | 6 | 6 | 7 | 9 | 5 | 5 | 5 | 4 | 5 | 5 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|--|--|---|---|---|---|---|--|--|--|---|---|--|---|---|---|---|---|--|---|---|---|---|
| Skin | + | | | | | | + | + | | | | | | | | | | | | + | + | | | + | + | + | | | | | + | + |
| Skin, Control | | + | | | + | + | | | | | | + | + | + | + | | | | | | | | | | + | | + | | | | | + |
| Skin, SOA-Mass | | + | + | + | + | | + | | + | | | | + | + | + | + | | | | | | | + | + | | + | | | + | + | + | |
| Squamous Cell Carcinoma | | | | X | X | X | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | X | X | | |
| Subcut Tiss, Hemangioma | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:08
 First Dose M/F: NA / NA
 Lab: BAT

| CD-1 CRL Mouse Male
MNNG1000/BPO 20 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 3 | 3 | 2 | 3 | 3 | 1 | 3 | 3 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 1 | 1 | 3 | 3 |
| | 7 | 6 | 0 | 9 | 2 | 4 | 9 | 0 | 5 | 9 | 6 | 5 | 2 | 3 | 2 | 0 | 6 | 6 | 6 | 1 | 2 | 4 | 7 | 9 | 8 | 6 | 9 | 7 | 6 | 6 |
| | 5 | 2 | 6 | 6 | 7 | 8 | 7 | 0 | 7 | 7 | 3 | 8 | 4 | 8 | 9 | 0 | 3 | 4 | 4 | 9 | 6 | 6 | 7 | 9 | 5 | 5 | 5 | 4 | 5 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| Subcut Tiss, Sarcoma | | | X | | | | | X | X | | | X | | | | | | | | | X | X | | X | | X | | X | | |
| Skin, SOA-No Mass | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:09
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG1000/BPO 20

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-------------------------|----|
| Skin | 14 |
| Skin, Control | 11 |
| Skin, SOA-Mass | 16 |
| Squamous Cell Carcinoma | 4 |
| Squamous Cell Papilloma | 3 |
| Subcut Tiss, Hemangioma | 1 |
| Subcut Tiss, Sarcoma | 9 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:09
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG1000/BPO 20

ANIMAL ID

*TOTALS

| | |
|-------------------------------|----|
| Skin, SOA-No Mass | 28 |
| Musculoskeletal System | |
| NONE | |
| Nervous System | |
| NONE | |
| Respiratory System | |
| NONE | |
| Special Senses System | |
| NONE | |
| Urinary System | |
| NONE | |
| SYSTEMIC LESIONS | |
| Multiple Organ | 30 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:09
 First Dose M/F: NA / NA
 Lab: BAT

| CD-1 CRL Mouse Male
MNNG 100/TPA 5 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|--|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Skin | + | + | + | | | | | + | + | + | | | | | + | + | | | | | | | | | | | | | + | + | + |
| Skin, Control | + | + | + | | | | | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Skin, SOA-Mass | | | | + | | | | + | | | | | | | | | | | | | | | | | | | | | | | + |
| Squamous Cell Carcinoma, Multiple | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | X | | X | | | | | | | | | | | | | X | | | | | | | | | X | |
| Squamous Cell Papilloma, Multiple | | | | | | X | | | | | | | | | | | | | | | X | | X | | | | | | | | X |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:09
 First Dose M/F: NA / NA
 Lab: BAT

| CD-1 CRL Mouse Male
MNNG 100/TPA 5 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 3 | 3 | 3 | 0 | 2 | 3 | 2 | 2 | 1 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 1 | 3 |
| | 8 | 3 | 6 | 2 | 8 | 3 | 1 | 9 | 5 | 7 | 6 | 3 | 9 | 6 | 7 | 1 | 4 | 6 | 6 | 6 | 3 | 6 | 5 | 6 | 7 | 6 | 9 | 3 | 8 |
| | 4 | 6 | 2 | 5 | 5 | 5 | 3 | 5 | 9 | 6 | 2 | 0 | 6 | 2 | 2 | 3 | 8 | 3 | 3 | 3 | 5 | 4 | 9 | 4 | 1 | 5 | 9 | 0 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Subcut Tiss, Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, SOA-No Mass | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:09
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG 100/TPA 5

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-----------------------------------|----|
| Skin | 14 |
| Skin, Control | 21 |
| Skin, SOA-Mass | 10 |
| Squamous Cell Carcinoma, Multiple | 1 |
| Squamous Cell Papilloma | 4 |
| Squamous Cell Papilloma, Multiple | 5 |
| Subcut Tiss, Sarcoma | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:09
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG 100/TPA 5

ANIMAL ID

*TOTALS

| | |
|-------------------------------|----|
| Skin, SOA-No Mass | 30 |
| Musculoskeletal System | |
| NONE | |
| Nervous System | |
| NONE | |
| Respiratory System | |
| NONE | |
| Special Senses System | |
| NONE | |
| Urinary System | |
| NONE | |
| SYSTEMIC LESIONS | |
| Multiple Organ | 30 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:09
 First Dose M/F: NA / NA
 Lab: BAT

| CD-1 CRL Mouse Male
MNNG1000/TPA 5 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
|---------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 2 | 2 | 3 | 1 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| | 4 | 3 | 6 | 9 | 7 | 2 | 7 | 9 | 6 | 2 | 6 | 6 | 9 | 7 | 3 | 9 | 6 | 7 | 4 | 3 | 9 | 4 | 0 | 4 | 2 | 9 | 7 | 9 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | | |
| | 9 | 6 | 2 | 5 | 3 | 4 | 5 | 3 | 3 | 7 | 4 | 8 | 7 | 5 | 6 | 3 | 5 | 6 | 3 | 4 | 9 | 6 | 6 | 3 | 8 | 3 | 5 | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 0 | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Skin | | | + | | + | + | | + | | + | | | | + | + | | | | + | | | | | | | | | | | | | | | | | + | | + | + | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Squamous Cell Carcinoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Skin, Control | | + | + | | | + | + | | + | + | | | + | | + | | | | | + | + | + | + | + | | + | | + | | | | | | | | | | | | |
| Skin, SOA-Mass | | + | | + | + | + | | + | + | + | | + | + | | + | + | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Keratoacanthoma | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:09
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------------------|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CD-1 CRL Mouse Male | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 2 | 3 | 2 | 3 | 1 | 1 | 1 | 2 | 2 | 3 | 1 | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 2 |
| MNNG1000/TPA 5 | 4 | 3 | 6 | 9 | 7 | 2 | 7 | 9 | 6 | 2 | 6 | 6 | 9 | 7 | 3 | 9 | 6 | 7 | 4 | 3 | 9 | 4 | 0 | 4 | 2 | 9 | 7 | 9 | 3 | 7 |
| | 9 | 6 | 2 | 5 | 3 | 4 | 5 | 3 | 3 | 7 | 4 | 8 | 7 | 5 | 6 | 3 | 5 | 6 | 3 | 4 | 9 | 6 | 6 | 3 | 8 | 3 | 5 | 9 | 1 | 1 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|-----|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|
| Keratoacanthoma, Multiple | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | X | | | | | | | | X | | | | | | | | X | | | | | | | | | | | | | |
| Squamous Cell Papilloma | X X | | | | X | | | | | | | | X | | | | | | | | X X | | | | | | | | | |
| Squamous Cell Papilloma, Multiple | X X | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | |
| Subcut Tiss, Hemangiosarcoma | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Sarcoma | X | | | | | | | | | | | X | X | | X | X | | | X | | X | | X | X | | | | | X | |
| Skin, SOA-No Mass | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:09
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG1000/TPA 5

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|---|----|
| Skin | 12 |
| Squamous Cell Carcinoma | 1 |
| Squamous Cell Carcinoma, Metastatic, Skin | 1 |
| Skin, Control | 15 |
| Skin, SOA-Mass | 20 |
| Keratoacanthoma | 2 |
| Keratoacanthoma, Multiple | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:09
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
MNNG1000/TPA 5

ANIMAL ID

*TOTALS

| | |
|-----------------------------------|----|
| Squamous Cell Carcinoma | 4 |
| Squamous Cell Papilloma | 6 |
| Squamous Cell Papilloma, Multiple | 3 |
| Subcut Tiss, Hemangiosarcoma | 1 |
| Subcut Tiss, Sarcoma | 11 |
| Skin, SOA-No Mass | 29 |

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

| | |
|----------------|----|
| Multiple Organ | 30 |
|----------------|----|

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:09
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
SENTINEL MALE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:09
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Male
SENTINEL MALE

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

0

END OF MALE DATA

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:09
 First Dose M/F: NA / NA
 Lab: BAT

| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Female | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| VEHICLE CONTROL | | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | | 5 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 7 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 0 | 5 | 5 | 5 | 5 | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |

NONE
Respiratory System
 NONE
Special Senses System
 NONE
Urinary System
 NONE
SYSTEMIC LESIONS
 Multiple Organ +

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:09
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
VEHICLE CONTROL

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin 29

Skin, SOA-No Mass 2

Musculoskeletal System

NONE

Nervous System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:09
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
VEHICLE CONTROL

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:10
 First Dose M/F: NA / NA
 Lab: BAT

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Female
MNNG 100/ACETONE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

NONE
Respiratory System
 NONE
Special Senses System
 NONE
Urinary System
 NONE
SYSTEMIC LESIONS
 Multiple Organ

+ +

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:10
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG 100/ACETONE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-------------------|----|
| Skin | 21 |
| Skin, SOA-No Mass | 9 |

Musculoskeletal System

NONE

Nervous System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:10
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG 100/ACETONE

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:10
First Dose M/F: NA / NA
Lab: BAT

| | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Female
MNNG 500/ACETONE | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 7 | 6 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 7 | 2 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|--|---|--|--|---|--|---|---|---|--|--|---|---|--|---|---|--|---|---|--|---|--|---|---|
| Skin | + | + | | + | | | + | | | + | + | | | | | | + | + | | + | + | | | | | |
| Skin, Control | | | | + | | | | | | + | | | | | | | + | | | | | | | | + | |
| Skin, SOA-Mass | | | | + | | | + | | | + | | | | + | + | | + | + | | | | | | | | + |
| Squamous Cell Carcinoma | | | | X | | | | | | | | | | | | | | | | X | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma, Multiple | | | | | | | | | | | | | | | | | | | | | | | X | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:10
 First Dose M/F: NA / NA
 Lab: BAT

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CD-1 CRL Mouse Female | | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | MNNG 500/ACETONE | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 7 | 6 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 7 | 2 | 3 | 3 | 3 | 3 | 5 | 3 | 3 | 3 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Subcut Tiss, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Subcut Tiss, Sarcoma | | | | | | | | | | | | | | | | | | | X | | X | | | | | | | | |
| Skin, SOA-No Mass | | + | + | | | + | | + | + | + | | + | + | | | | | + | + | + | | | | | + | | + | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:10
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG 500/ACETONE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-----------------------------------|----|
| Skin | 10 |
| Skin, Control | 4 |
| Skin, SOA-Mass | 7 |
| Squamous Cell Carcinoma | 2 |
| Squamous Cell Papilloma | 1 |
| Squamous Cell Papilloma, Multiple | 1 |
| Subcut Tiss, Fibroma | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:10
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG 500/ACETONE

| ANIMAL ID | *TOTALS |
|-------------------------------|---------|
| Subcut Tiss, Sarcoma | 2 |
| Skin, SOA-No Mass | 14 |
| Musculoskeletal System | |
| NONE | |
| Nervous System | |
| NONE | |
| Respiratory System | |
| NONE | |
| Special Senses System | |
| NONE | |
| Urinary System | |
| NONE | |
| SYSTEMIC LESIONS | |
| Multiple Organ | 29 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:10
 First Dose M/F: NA / NA
 Lab: BAT

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Female
MNNG1000/ACETONE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 2 | 2 | 3 | 1 | 2 | 3 | 3 | 3 | 3 | 3 |
| | 5 | 6 | 6 | 8 | 3 | 6 | 9 | 6 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 3 | 9 | 6 | 6 | 6 | 1 | 2 | 6 | 8 | 1 | 3 | 6 | 6 | 6 | 1 |
| | 1 | 7 | 2 | 1 | 0 | 2 | 5 | 7 | 3 | 2 | 2 | 2 | 3 | 3 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 9 | 5 | 3 | 9 | 5 | 5 | 5 | 5 | 6 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|--|--|--|---|---|--|---|---|--|---|---|---|---|--|--|---|---|--|---|---|--|--|---|---|---|---|--|--|--|---|
| Skin | | | | | | + | | | + | | | + | | | | | | + | + | | | | | | | + | + | + | | | | |
| Skin, Control | | | | | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | |
| Skin, SOA-Mass | | | | | | | + | | | + | | | | + | + | | | | | | + | + | | | | | | | | | | + |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | X | | | | | | | | | | | X | | | | | | | X |
| Squamous Cell Carcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:10
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CD-1 CRL Mouse Female | 1 | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 1 | 3 | 3 | 3 | 2 | 2 | 3 | 1 | 2 | 3 | 3 | 3 | 3 |
| MNNG1000/ACETONE | 5 | 6 | 6 | 8 | 3 | 6 | 9 | 6 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 3 | 9 | 6 | 6 | 6 | 1 | 2 | 6 | 8 | 1 | 3 | 6 | 6 | 6 |
| | 1 | 7 | 2 | 1 | 0 | 2 | 5 | 7 | 3 | 2 | 2 | 2 | 3 | 3 | 4 | 0 | 4 | 4 | 4 | 4 | 4 | 9 | 5 | 3 | 9 | 5 | 5 | 5 | 6 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Subcut Tiss, Sarcoma | X | | | | | | | | X | | | | | | | | X | | | X | X | | | | | | | | |
| Skin, SOA-No Mass | + | + | + | + | | + | + | + | | | + | + | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | + |
| Subcut Tiss, Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:10
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG1000/ACETONE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-----------------------------------|---|
| Skin | 8 |
| Skin, Control | 2 |
| Skin, SOA-Mass | 9 |
| Squamous Cell Carcinoma | 3 |
| Squamous Cell Carcinoma, Multiple | 1 |
| Squamous Cell Papilloma | 2 |
| Subcut Tiss, Sarcoma | 5 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:10
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG1000/ACETONE

| ANIMAL ID | *TOTALS |
|-------------------------------|---------|
| Skin, SOA-No Mass | 26 |
| Subcut Tiss, Sarcoma | 1 |
| Musculoskeletal System | |
| NONE | |
| Nervous System | |
| NONE | |
| Respiratory System | |
| NONE | |
| Special Senses System | |
| NONE | |
| Urinary System | |
| NONE | |
| SYSTEMIC LESIONS | |
| Multiple Organ | 30 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:11
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| CD-1 CRL Mouse Female | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | | |
| TPA 5 COMPLETE | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 9 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 1 | 0 | 6 | 6 | |
| | 0 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 1 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 9 | 0 | 5 | 5 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| Skin, SOA-No Mass | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant Lymphocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:11
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
TPA 5 COMPLETE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|--|----|
| Skin | 4 |
| Subcut Tiss, Lymphoma Malignant
Lymphocytic | 1 |
| Skin, Control | 18 |
| Skin, SOA-Mass | 5 |
| Squamous Cell Papilloma | 4 |
| Skin, SOA-No Mass | 28 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:11
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
TPA 5 COMPLETE

ANIMAL ID

*TOTALS

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

| | |
|--------------------------------|----|
| Multiple Organ | 28 |
| Lymphoma Malignant Lymphocytic | 1 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:11
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| CD-1 CRL Mouse Female | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| MNNG100/COMPLETE | 6 | 6 | 6 | 4 | 2 | 4 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 1 | 6 | 9 | 6 | 9 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 2 | 6 | 1 | 4 | 6 |
| | 2 | 2 | 2 | 7 | 1 | 7 | 7 | 2 | 2 | 3 | 3 | 3 | 6 | 3 | 2 | 3 | 3 | 5 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 6 | 5 | 3 | 7 | 5 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | X | | | | | | | | | | X | | X | X | | | |
| Squamous Cell Papilloma, Multiple | | | | | X | X | | | | X | | | | | | | | | | | | | | | X | | | X | | | |
| Subcut Tiss, Sarcoma | | | | | | X | | X | | | | | | | | X | | | | | | | | | | | | | X | | |
| Skin, SOA-No Mass | | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:11
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG100/COMPLETE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-----------------------------------|----|
| Skin | 4 |
| Squamous Cell Papilloma | 1 |
| Skin, Control | 22 |
| Skin, SOA-Mass | 20 |
| Squamous Cell Carcinoma | 11 |
| Squamous Cell Carcinoma, Multiple | 4 |
| Squamous Cell Papilloma | 4 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:11
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG100/COMPLETE

| ANIMAL ID | *TOTALS |
|-----------------------------------|---------|
| Squamous Cell Papilloma, Multiple | 5 |
| Subcut Tiss, Sarcoma | 4 |
| Skin, SOA-No Mass | 27 |
| Musculoskeletal System | |
| NONE | |
| Nervous System | |
| NONE | |
| Respiratory System | |
| NONE | |
| Special Senses System | |
| NONE | |
| Urinary System | |
| NONE | |
| SYSTEMIC LESIONS | |
| Multiple Organ | 30 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:11
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
BPO 20 COMPLETE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-------------------|----|
| Skin | 9 |
| Skin, Control | 5 |
| Skin, SOA-No Mass | 21 |

Musculoskeletal System

NONE

Nervous System

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:11
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
BPO 20 COMPLETE

ANIMAL ID

*TOTALS

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:12
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG 100/BPO 20

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-------------------------|----|
| Skin | 4 |
| Skin, Control | 4 |
| Skin, SOA-Mass | 3 |
| Keratoacanthoma | 1 |
| Squamous Cell Papilloma | 2 |
| Skin, SOA-No Mass | 28 |

Musculoskeletal System

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:12
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG 100/BPO 20

ANIMAL ID

*TOTALS

NONE

Nervous System

NONE

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

30

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

Experiment Number: 05117-05

Test Type: INIT/PROMOT

Route: SKIN APPLICATION

Species/Strain: Mouse/CD-1 CRL

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

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

CAS Number: INIT/PROM

Date Report Requested: 10/19/2014

Time Report Requested: 17:43:12

First Dose M/F: NA / NA

Lab: BAT

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Female
MNNG 500/BPO 20 | | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 | |
| | | 6 | 6 | 6 | 1 | 6 | 6 | 1 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 5 | 6 | 3 | 4 | 6 | 6 | 1 | 5 | 6 | 2 | 6 | 6 | 8 | 6 | |
| | | 2 | 2 | 2 | 4 | 2 | 2 | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 7 | 4 | 4 | 4 | 4 | 0 | 1 | 4 | 5 | 4 | 1 | 5 | 4 | 5 | 5 | 6 | 6 | 5 | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, Control | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, SOA-Mass | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Keratoacanthoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:12
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| CD-1 CRL Mouse Female | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 2 | 3 |
| MNNG 500/BPO 20 | 6 | 6 | 6 | 1 | 6 | 6 | 1 | 6 | 6 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | 5 | 6 | 3 | 4 | 6 | 6 | 1 | 5 | 6 | 2 | 6 | 6 | 8 | 6 |
| | 2 | 2 | 2 | 4 | 2 | 2 | 9 | 3 | 3 | 3 | 3 | 3 | 7 | 4 | 4 | 4 | 4 | 4 | 0 | 1 | 4 | 5 | 4 | 1 | 5 | 4 | 5 | 5 | 6 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 0 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| Squamous Cell Papilloma | | | | | | | | | X | | X | | | | | X | X | | | | | | X | | | | | | | X |
| Subcut Tiss, Sarcoma | | | | X | | | | | | | | | | | | | | | | | | | | | | | X | | X | |
| Skin, SOA-No Mass | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:12
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG 500/BPO 20

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-------------------------|----|
| Skin | 5 |
| Subcut Tiss, Sarcoma | 1 |
| Skin, Control | 12 |
| Skin, SOA-Mass | 12 |
| Keratoacanthoma | 1 |
| Squamous Cell Carcinoma | 3 |
| Squamous Cell Papilloma | 6 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

Experiment Number: 05117-05
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P04: NEOPLASMS BY INDIVIDUAL ANIMAL
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CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:12
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG 500/BPO 20

| ANIMAL ID | *TOTALS |
|-------------------------------|---------|
| Subcut Tiss, Sarcoma | 3 |
| Skin, SOA-No Mass | 28 |
| Musculoskeletal System | |
| NONE | |
| Nervous System | |
| NONE | |
| Respiratory System | |
| NONE | |
| Special Senses System | |
| NONE | |
| Urinary System | |
| NONE | |
| SYSTEMIC LESIONS | |
| Multiple Organ | 30 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:12
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Female | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 3 | 1 | 3 | 3 | 2 | 2 | 0 | 1 | 3 | 3 | | | | | | | | | |
| MNNG1000/BPO 20 | 6 | 4 | 6 | 8 | 2 | 6 | 6 | 6 | 0 | 6 | 9 | 6 | 6 | 6 | 1 | 6 | 6 | 6 | 6 | 5 | 6 | 3 | 6 | 6 | 9 | 1 | 4 | 6 | 6 | 6 | | | | | | | | | |
| | 2 | 7 | 2 | 4 | 6 | 2 | 2 | 3 | 7 | 3 | 3 | 3 | 3 | 4 | 4 | 6 | 4 | 4 | 4 | 1 | 5 | 7 | 5 | 5 | 3 | 5 | 8 | 9 | 5 | 5 | | | | | | | | | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|--|---|--|---|--|--|---|--|---|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Skin | | | | + | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, Control | | | | + | | + | | | + | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, SOA-Mass | | | | + | | + | | | + | | + | | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:12
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| CD-1 CRL Mouse Female | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 2 | 3 | 2 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 1 | 3 | 1 | 3 | 3 | 2 | 2 | 0 | 1 | 3 | 3 |
| MNNG1000/BPO 20 | 6 | 4 | 6 | 8 | 2 | 6 | 6 | 6 | 0 | 6 | 9 | 6 | 6 | 6 | 1 | 6 | 6 | 6 | 6 | 5 | 6 | 3 | 6 | 6 | 9 | 1 | 4 | 6 | 6 | 6 |
| | 2 | 7 | 2 | 4 | 6 | 2 | 2 | 3 | 7 | 3 | 3 | 3 | 3 | 4 | 4 | 6 | 4 | 4 | 4 | 1 | 5 | 7 | 5 | 5 | 3 | 5 | 8 | 9 | 5 | 5 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| Squamous Cell Papilloma | | | | | | | | | X | | | | X | | | | | | | | | | | | | | | | | |
| Subcut Tiss, Sarcoma | | | X | | | X | | | X | | | X | | | | | | | | | | | X | | | | | | | X |
| Skin, SOA-No Mass | + | + | | + | | + | + | + | + | + | + | | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | |
| Squamous Cell Carcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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Species/Strain: Mouse/CD-1 CRL

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CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:12
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG1000/BPO 20

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-----------------------------------|----|
| Skin | 8 |
| Subcut Tiss, Sarcoma | 2 |
| Skin, Control | 7 |
| Skin, SOA-Mass | 12 |
| Squamous Cell Carcinoma | 3 |
| Squamous Cell Carcinoma, Multiple | 1 |
| Squamous Cell Papilloma | 2 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

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CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:12
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG1000/BPO 20

| ANIMAL ID | *TOTALS |
|-----------------------------------|---------|
| Subcut Tiss, Sarcoma | 6 |
| Skin, SOA-No Mass | 26 |
| Squamous Cell Carcinoma, Multiple | 1 |
| Musculoskeletal System | |
| NONE | |
| Nervous System | |
| NONE | |
| Respiratory System | |
| NONE | |
| Special Senses System | |
| NONE | |
| Urinary System | |
| NONE | |
| SYSTEMIC LESIONS | |
| Multiple Organ | 30 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

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

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CD-1 CRL Mouse Female
MNNG 100/TPA 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 1 | 0 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 0 | 2 | 2 | 2 | 5 | 2 | 2 | 3 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 0 | 5 | 5 | 6 | 5 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|--|---|---|---|---|---|---|---|---|--|---|---|---|---|--|---|---|---|---|--|--|---|---|--|---|---|---|---|---|
| Skin | | | | | | | | + | + | | | | | | | | | | | | | | | | | | | | | + | |
| Skin, Control | + | + | | | + | + | + | | | + | | | | | | | | | + | | | | | + | | | | + | + | | |
| Skin, SOA-Mass | + | | | + | + | | | | | + | + | | + | + | + | | | | + | + | + | | | + | + | | + | | + | + | |
| Keratoacanthoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Squamous Cell Carcinoma | X | | | | | | | | | | | | | | | X | | | X | | | | | | | | | X | | X | |
| Squamous Cell Papilloma | X | | | X | | | | | | | | | | | | | | X | | | | | | | X | | X | | | | |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:12
 First Dose M/F: NA / NA
 Lab: BAT

| CD-1 CRL Mouse Female
MNNG 100/TPA 5 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 5 | 6 | 6 | 6 | 1 | 6 | 6 | 1 | 0 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 0 | 6 | 6 | 2 | 6 | |
| | 0 | 2 | 2 | 2 | 5 | 2 | 2 | 3 | 0 | 2 | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 0 | 5 | 5 | 6 | 5 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| Squamous Cell Papilloma, Multiple | | | | | | X | | | | X | X | X | X | | | | | | | | | | X | | | | X | X | | |
| Subcut Tiss, Hemangioma | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin, SOA-No Mass | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:13
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG 100/TPA 5

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-----------------------------------|----|
| Skin | 3 |
| Skin, Control | 10 |
| Skin, SOA-Mass | 16 |
| Keratoacanthoma | 1 |
| Squamous Cell Carcinoma | 5 |
| Squamous Cell Papilloma | 5 |
| Squamous Cell Papilloma, Multiple | 8 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:13
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG 100/TPA 5

| ANIMAL ID | *TOTALS |
|-------------------------------|---------|
| Subcut Tiss, Hemangioma | 1 |
| Skin, SOA-No Mass | 29 |
| Squamous Cell Carcinoma | 1 |
| Musculoskeletal System | |
| NONE | |
| Nervous System | |
| NONE | |
| Respiratory System | |
| NONE | |
| Special Senses System | |
| NONE | |
| Urinary System | |
| NONE | |
| SYSTEMIC LESIONS | |
| Multiple Organ | 30 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:13
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CD-1 CRL Mouse Female | 3 | 1 | 3 | 3 | 2 | 2 | 1 | 3 | 2 | 3 | 3 | 3 | 0 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 2 | 3 | 3 | 3 | |
| MNNG1000/TPA 5 | 6 | 3 | 6 | 6 | 3 | 3 | 9 | 6 | 5 | 6 | 6 | 6 | 4 | 6 | 6 | 9 | 6 | 1 | 6 | 6 | 6 | 5 | 1 | 3 | 7 | 6 | 2 | 6 | 4 | |
| | 2 | 3 | 2 | 2 | 7 | 1 | 7 | 2 | 1 | 3 | 3 | 3 | 7 | 4 | 4 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 8 | 4 | 9 | 9 | 6 | 1 | 5 | 1 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

Skin

+

+

+

+

+

Subcut Tiss, Sarcoma

X

Skin, Control

+

+

+

+

+

+

+

+

+

+

+

Skin, SOA-Mass

+

+

+

+

+

+

+

+

+

+

+

+

+

+

Squamous Cell Carcinoma

X

X

X

Squamous Cell Carcinoma, Multiple

X

* ..Total animals with tissue examined microscopically; Total animals with tumor

M ..Missing tissue

+ ..Tissue examined microscopically

A ..Autolysis precludes evaluation

X ..Lesion present

BLANK ..Not examined microscopically

I ..Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
 CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
 Time Report Requested: 17:43:13
 First Dose M/F: NA / NA
 Lab: BAT

| DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| CD-1 CRL Mouse Female | 3 | 1 | 3 | 3 | 2 | 2 | 1 | 3 | 2 | 3 | 3 | 3 | 0 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 1 | 1 | 2 | 3 | 3 | 3 | | |
| MNNG1000/TPA 5 | 6 | 3 | 6 | 6 | 3 | 3 | 9 | 6 | 5 | 6 | 6 | 6 | 4 | 6 | 6 | 9 | 6 | 1 | 6 | 6 | 6 | 5 | 8 | 4 | 9 | 9 | 6 | 1 | 5 | 4 | |
| | 2 | 3 | 2 | 2 | 7 | 1 | 7 | 2 | 1 | 3 | 3 | 3 | 7 | 4 | 4 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 8 | 4 | 9 | 9 | 6 | 1 | 5 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| Squamous Cell Papilloma | X | X | | X | | | | | | | | | | X | X | | | | | X | | | | | X | | | | | | |
| Squamous Cell Papilloma, Multiple | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Subcut Tiss, Sarcoma | | | | | | | | | X | | | | | | | | | | | | | | | | | X | | | | X | |
| Skin, SOA-No Mass | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Squamous Cell Carcinoma | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Musculoskeletal System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nervous System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Senses System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary System | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* ..Total animals with tissue examined microscopically; Total animals with tumor
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:13
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG1000/TPA 5

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

| | |
|-----------------------------------|----|
| Skin | 5 |
| Subcut Tiss, Sarcoma | 1 |
| Skin, Control | 12 |
| Skin, SOA-Mass | 14 |
| Squamous Cell Carcinoma | 3 |
| Squamous Cell Carcinoma, Multiple | 1 |
| Squamous Cell Papilloma | 7 |

* ..Total animals with tissue examined microscopically; Total animals with tumor

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:13
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
MNNG1000/TPA 5

| ANIMAL ID | *TOTALS |
|-----------------------------------|---------|
| Squamous Cell Papilloma, Multiple | 2 |
| Subcut Tiss, Sarcoma | 3 |
| Skin, SOA-No Mass | 29 |
| Squamous Cell Carcinoma | 1 |
| Musculoskeletal System | |
| NONE | |
| Nervous System | |
| NONE | |
| Respiratory System | |
| NONE | |
| Special Senses System | |
| NONE | |
| Urinary System | |
| NONE | |
| SYSTEMIC LESIONS | |
| Multiple Organ | 29 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:13
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
SENTINEL FEMALE

ANIMAL ID

*TOTALS

Alimentary System

NONE

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)
CAS Number: INIT/PROM

Date Report Requested: 10/19/2014
Time Report Requested: 17:43:13
First Dose M/F: NA / NA
Lab: BAT

DAY ON TEST

CD-1 CRL Mouse Female
SENTINEL FEMALE

ANIMAL ID

*TOTALS

Respiratory System

NONE

Special Senses System

NONE

Urinary System

NONE

SYSTEMIC LESIONS

Multiple Organ

0

**** END OF REPORT ****

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue

M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically