

**Experiment Number:** 05117-06  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/SENCAR

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH  
AVERAGE SEVERITY GRADES[b]**

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

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 19:47:09  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**C Number:** C61994C  
**Lock Date:** Not Entered.  
**Cage Range:** All  
**Date Range:** All  
**Reasons For Removal:** All  
**Removal Date Range:** All  
**Treatment Groups:** All  
**Study Gender:** Both  
**PWG Approval Date** 04/29/1994

Experiment Number: 05117-06  
 Test Type: INIT/PROMOT  
 Route: SKIN APPLICATION  
 Species/Strain: Mouse/SEN CAR

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]**  
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
 CAS Number: INIT/PROM

Date Report Requested: 10/18/2014  
 Time Report Requested: 19:47:09  
 First Dose M/F: NA / NA  
 Lab: BAT

SEN CAR Mouse MALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	MNNG100/COMPLET E	BPO 20 COMPLETE
<b>Disposition Summary</b>						
Animals Initially In Study	30	30	30	30	30	30
Early Deaths						
Moribund Sacrifice		2	10	20	23	3
Natural Death	1		4	3	3	
Survivors						
Natural Death						1
Terminal Sacrifice	29	28	16	7	4	26
Animals Examined Microscopically	30	30	30	30	30	30
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						
HEMATOPOIETIC SYSTEM						
None						
INTEGUMENTARY SYSTEM						
Skin	(29)	(21)	(11)	(19)	(5)	(4)
Acanthosis						1 [4.0]
Alopecia				3		

a - Number of animals examined microscopically at site and number of animals with lesion  
 b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]**  
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**First Dose M/F:** NA / NA  
**Lab:** BAT

SENCAR Mouse MALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	MNNG100/COMPLET E	BPO 20 COMPLETE
Inflammation, Chronic Active Ulcer			4 [3.3] 4 [4.0]	14 [3.1] 13 [3.7]	5 [3.0] 5 [4.0]	1 [3.0] 1 [4.0]
Skin, Control	(0)	(0)	(4)	(5)	(22)	(15)
Acanthosis			4 [2.3]	4 [1.5]	21 [1.7]	15 [1.2]
Inflammation, Chronic Active Ulcer			3 [1.0]	5 [1.6] 1 [4.0]	17 [1.3] 1 [4.0]	9 [1.0]
Skin, SOA-Mass	(0)	(3)	(12)	(18)	(28)	(1)
Acanthosis		2 [2.5]		2 [3.5]		
Skin, SOA-No Mass	(1)	(6)	(19)	(19)	(30)	(27)
Acanthosis	1 [1.0]	6 [1.0]	13 [1.7]	9 [1.8]	25 [2.2]	25 [1.7]
Alopecia						1
Hair Follicle, Cyst			2	2		
Inflammation, Chronic Active Subcut Tiss, Edema			15 [2.2]	17 [2.6]	26 [2.3]	26 [1.2]
Subcut Tiss, Infiltration Cellular, Mixed Cell Ulcer					1 [3.0]	
			8 [3.8]	11 [3.6]	15 [3.7]	2 [3.5]
<b>MUSCULOSKELETAL SYSTEM</b>						
None						
<b>NERVOUS SYSTEM</b>						
None						
<b>RESPIRATORY SYSTEM</b>						
None						
<b>SPECIAL SENSES SYSTEM</b>						
None						
<b>URINARY SYSTEM</b>						
None						

a - Number of animals examined microscopically at site and number of animals with lesion  
 b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]**

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

**CAS Number:** INIT/PROM

**Date Report Requested:** 10/18/2014  
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**First Dose M/F:** NA / NA  
**Lab:** BAT

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**SENCAR Mouse MALE**

**VEHICLE CONTROL**

**MNNG  
100/ACETONE**

**MNNG  
500/ACETONE**

**MNNG1000/ACETON  
E**

**MNNG100/COMPLET  
E BPO 20 COMPLETE**

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a - Number of animals examined microscopically at site and number of animals with lesion  
b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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

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

SENCAR Mouse MALE	MNNG 100/BPO 20	MNNG 500/BPO 20	MNNG1000/BPO 20	MNNG 100/TPA 5	MNNG1000/TPA 5
<b>Disposition Summary</b>					
<b>Animals Initially In Study</b>	30	30	30	30	30
<b>Early Deaths</b>					
<b>Moribund Sacrifice</b>	2	11	21		
<b>Natural Death</b>		3	3		
<b>Survivors</b>					
<b>Natural Death</b>					
<b>Terminal Sacrifice</b>	28	16	6		
<b>Animals Examined Microscopically</b>	30	30	30		
<b>ALIMENTARY SYSTEM</b>					
None					
<b>CARDIOVASCULAR SYSTEM</b>					
None					
<b>ENDOCRINE SYSTEM</b>					
None					
<b>GENERAL BODY SYSTEM</b>					
None					
<b>GENITAL SYSTEM</b>					
None					
<b>HEMATOPOIETIC SYSTEM</b>					
None					
<b>INTEGUMENTARY SYSTEM</b>					
Skin	(0)	(3)	(3)	(0)	(0)
Acanthosis					
Alopecia			2		
Inflammation, Chronic Active		6 [3.0]	6 [3.0]		

a - Number of animals examined microscopically at site and number of animals with lesion  
 b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/SENCAR

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH  
 AVERAGE SEVERITY GRADES[b]**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/18/2014  
**Time Report Requested:** 19:47:09  
**First Dose M/F:** NA / NA  
**Lab:** BAT

SENCAR Mouse MALE	MNNG 100/BPO 20	MNNG 500/BPO 20	MNNG1000/BPO 20	MNNG 100/TPA 5	MNNG1000/TPA 5
Ulcer		6 [3.7]	6 [4.0]		
Skin, Control	(15)	(14)	(21)	(0)	(0)
Acanthosis	30 [1.1]	28 [1.4]	42 [1.7]		
Inflammation, Chronic Active	28 [1.0]	28 [1.1]	42 [1.3]		
Ulcer					
Skin, SOA-Mass	(12)	(21)	(27)	(0)	(0)
Acanthosis	2 [3.0]	6 [2.3]			
Skin, SOA-No Mass	(29)	(29)	(28)	(0)	(0)
Acanthosis	56 [1.6]	54 [2.0]	56 [2.6]		
Alopecia					
Hair Follicle, Cyst	2	4			
Inflammation, Chronic Active	58 [1.2]	56 [1.6]	54 [1.8]		
Subcut Tiss, Edema		2 [3.0]			
Subcut Tiss, Infiltration Cellular, Mixed Cell					
Ulcer	2 [4.0]	10 [3.6]	10 [4.0]		
<b>MUSCULOSKELETAL SYSTEM</b>					
None					
<b>NERVOUS SYSTEM</b>					
None					
<b>RESPIRATORY SYSTEM</b>					
None					
<b>SPECIAL SENSES SYSTEM</b>					
None					
<b>URINARY SYSTEM</b>					
None					

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

a - Number of animals examined microscopically at site and number of animals with lesion  
 b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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 Test Type: INIT/PROMOT  
 Route: SKIN APPLICATION  
 Species/Strain: Mouse/SENCAR

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH  
 AVERAGE SEVERITY GRADES[b]**  
 Test Compound: Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
 CAS Number: INIT/PROM

Date Report Requested: 10/18/2014  
 Time Report Requested: 19:47:09  
 First Dose M/F: NA / NA  
 Lab: BAT

SENCAR Mouse FEMALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	TPA 5 COMPLETE	MNNG100/COMPLET E
<b>Disposition Summary</b>						
Animals Initially In Study	30	30	30	30	30	30
<b>Early Deaths</b>						
Accidentally Killed	1					
Moribund Sacrifice	1		5	13		25
Natural Death	2		3	6		2
<b>Survivors</b>						
Terminal Sacrifice	26	30	22	11		3
Animals Examined Microscopically	30	30	30	30		30
ALIMENTARY SYSTEM						
None						
CARDIOVASCULAR SYSTEM						
None						
ENDOCRINE SYSTEM						
None						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
None						
HEMATOPOIETIC SYSTEM						
None						
INTEGUMENTARY SYSTEM						
Mammary Gland	(0)	(0)	(1)	(0)	(0)	(0)
Skin	(30)	(28)	(10)	(9)	(0)	(5)
Acanthosis				1 [3.0]		2 [4.0]

a - Number of animals examined microscopically at site and number of animals with lesion  
 b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

**Experiment Number:** 051117-06  
**Test Type:** INIT/PROMOT  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/SENCAR

**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]**  
**Test Compound:** Init/prom comparative mouse study (DMBA/TPA/BPO/MNNG)  
**CAS Number:** INIT/PROM

**Date Report Requested:** 10/18/2014  
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**First Dose M/F:** NA / NA  
**Lab:** BAT

SENCAR Mouse FEMALE	VEHICLE CONTROL	MNNG 100/ACETONE	MNNG 500/ACETONE	MNNG1000/ACETON E	TPA 5 COMPLETE	MNNG100/COMPLET E
Alopecia				1		1
Hair Follicle, Cyst						1
Inflammation, Chronic Active		1 [2.0]		6 [3.0]		2 [2.5]
Ulcer		1 [2.0]		4 [3.8]		3 [3.7]
Skin, Control	(0)	(0)	(3)	(6)	(0)	(20)
Acanthosis			3 [1.0]	5 [1.2]		19 [1.6]
Inflammation, Chronic Active			1 [1.0]	3 [1.7]		17 [1.4]
Ulcer				1 [3.0]		
Skin, SOA-Mass	(0)	(0)	(8)	(22)	(0)	(28)
Acanthosis				2 [2.5]		
Skin, SOA-No Mass	(0)	(2)	(17)	(17)	(0)	(28)
Abscess		1 [1.0]				
Acanthosis		1 [1.0]	17 [1.3]	11 [2.0]		24 [2.0]
Hair Follicle, Cyst				2		
Inflammation, Chronic Active			16 [1.3]	17 [1.9]		27 [2.0]
Ulcer			1 [3.0]	8 [3.5]		6 [3.7]
<b>MUSCULOSKELETAL SYSTEM</b>						
None						
<b>NERVOUS SYSTEM</b>						
None						
<b>RESPIRATORY SYSTEM</b>						
None						
<b>SPECIAL SENSES SYSTEM</b>						
None						
<b>URINARY SYSTEM</b>						
None						

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)



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

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**SENCAR Mouse FEMALE**

**VEHICLE CONTROL**

**MNNG  
100/ACETONE**

**MNNG  
500/ACETONE**

**MNNG1000/ACETON  
E**

**TPA 5 COMPLETE**

**MNNG100/COMPLET  
E**

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a - Number of animals examined microscopically at site and number of animals with lesion  
b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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

SENCAR Mouse FEMALE	BPO 20 COMPLETE	MNNG 100/BPO 20	MNNG 500/BPO 20	MNNG1000/BPO 20	MNNG 100/TPA 5	MNNG1000/TPA 5
<b>Disposition Summary</b>						
<b>Animals Initially In Study</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>
<b>Early Deaths</b>						
<b>Accidentally Killed</b>						
<b>Moribund Sacrifice</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>12</b>		
<b>Natural Death</b>	<b>2</b>			<b>4</b>		
<b>Survivors</b>						
<b>Terminal Sacrifice</b>	<b>27</b>	<b>29</b>	<b>23</b>	<b>14</b>		
<b>Animals Examined Microscopically</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>		
<b>ALIMENTARY SYSTEM</b>						
None						
<b>CARDIOVASCULAR SYSTEM</b>						
None						
<b>ENDOCRINE SYSTEM</b>						
None						
<b>GENERAL BODY SYSTEM</b>						
None						
<b>GENITAL SYSTEM</b>						
None						
<b>HEMATOPOIETIC SYSTEM</b>						
None						
<b>INTEGUMENTARY SYSTEM</b>						
Mammary Gland	(0)	(0)	(0)	(0)	(0)	(0)
Skin	(5)	(2)	(3)	(5)	(0)	(0)
Acanthosis				2 [3.0]		
Alopecia			2			

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

b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

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**P18: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE (a) WITH AVERAGE SEVERITY GRADES[b]**  
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 First Dose M/F: NA / NA  
 Lab: BAT

SENCAR Mouse FEMALE	BPO 20 COMPLETE	MNNG 100/BPO 20	MNNG 500/BPO 20	MNNG1000/BPO 20	MNNG 100/TPA 5	MNNG1000/TPA 5
Hair Follicle, Cyst				2		
Inflammation, Chronic Active	2 [3.0]	2 [2.0]	4 [3.5]	8 [3.0]		
Ulcer	2 [3.5]	2 [3.0]	4 [3.5]	10 [3.4]		
Skin, Control	(14)	(15)	(17)	(18)	(0)	(0)
Acanthosis	14 [1.2]	30 [1.1]	34 [1.3]	32 [1.5]		
Inflammation, Chronic Active	14 [1.0]	30 [1.1]	34 [1.1]	32 [1.3]		
Ulcer				4 [3.5]		
Skin, SOA-Mass	(1)	(10)	(14)	(17)	(0)	(0)
Acanthosis			2 [4.0]			
Skin, SOA-No Mass	(27)	(28)	(28)	(29)	(0)	(0)
Abscess						
Acanthosis	27 [1.6]	56 [1.3]	56 [1.9]	54 [2.4]		
Hair Follicle, Cyst				2		
Inflammation, Chronic Active	27 [1.1]	56 [1.2]	56 [1.4]	62 [1.8]		
Ulcer	1 [4.0]		4 [3.5]	12 [3.7]		
<b>MUSCULOSKELETAL SYSTEM</b>						
None						
<b>NERVOUS SYSTEM</b>						
None						
<b>RESPIRATORY SYSTEM</b>						
None						
<b>SPECIAL SENSES SYSTEM</b>						
None						
<b>URINARY SYSTEM</b>						
None						

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

a - Number of animals examined microscopically at site and number of animals with lesion  
 b - Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)