

**Experiment Number:** 97011-23  
**Test Type:** 26-WEEK  
**Route:** SKIN APPLICATION  
**Species/Strain:** Mouse/FVB/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
**Test Compound:** Transgenic model evaluation (Melphalan)  
**CAS Number:** 148-82-3

**Date Report Requested:** 10/20/2014  
**Time Report Requested:** 04:55:33  
**First Dose M/F:** NA / NA  
**Lab:** MBA

**C Number:** C97011C  
**Lock Date:** 07/21/2000  
**Cage Range:** All  
**Date Range:** All  
**Reasons For Removal:** All  
**Removal Date Range:** All  
**Treatment Groups:** All  
**Study Gender:** Both  
**PWG Approval Date:** NONE

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

DAY ON TEST	0															*TOTALS		
	1																	
FVB/N Mouse Male VEHICLE CONTROL	8															*TOTALS		
	6																	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS
	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	
	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	6	

**Alimentary System**

Intestine Large, Cecum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	14	
Intestine Large, Colon	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	14	
Intestine Large, Rectum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	14	
Intestine Small, Duodenum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	14	
Intestine Small, Ileum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	14	
Intestine Small, Jejunum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	14	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Hepatocyte, Necrosis, Focal						1											1	1.0
Infiltration Cellular, Polymorphnuclr, Focal						1											1	1.0
Stomach, Forestomach	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	14	
Stomach, Glandular	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	14	

**Cardiovascular System**

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
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**Endocrine System**

Adrenal Cortex	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	14	
Atrophy	2	2	2	2	2	3		3	2	3	2	3	3	2	2		14	2.4
Hypertrophy, Focal			1			1						1	1				4	1.0
Zona Reticul, Vacuolization Cytoplasmic, Focal								1				1					2	1.0
Adrenal Medulla	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	14	

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

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M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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Date Report Requested: 10/20/2014  
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 First Dose M/F: NA / NA  
 Lab: MBA

FVB/N Mouse Male VEHICLE CONTROL	DAY ON TEST															*TOTALS
	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	
	8	8	8	8	8	8	4	8	8	8	8	8	8	8	8	
	6	6	6	6	6	6	4	6	6	6	6	6	6	6	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	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	
Pituitary Gland	+	+	+	+	+	+	A	+	I	+	+	+	+	+	+	13
Thyroid Gland	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	14
<b>General Body System</b>																
NONE																
<b>Genital System</b>																
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Germinal Epith, Degeneration				1											2	2 1.5
<b>Hematopoietic System</b>																
Bone Marrow	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	14
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Lymph Node, Mediastinal	M	+	I	+	+	+	+	+	+	+	+	+	+	+	+	13
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Spleen	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	14
Hematopoietic Cell Proliferation	1	2	1	1	2	2		1	1	2	1	2	2	2	1	14 1.5
Pigmentation	1	1	1		1	1				1		1	1	1	1	10 1.0
Thymus	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	14
<b>Integumentary System</b>																
Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	0
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Epidermis, Hyperplasia, Focal							1									1 1.0

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+ ..Tissue examined microscopically

X ..Lesion present

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 Species/Strain: Mouse/FVB/N

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 Test Compound: Transgenic model evaluation (Melphalan)  
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 Time Report Requested: 04:55:33  
 First Dose M/F: NA / NA  
 Lab: MBA

DAY ON TEST	FVB/N Mouse Male VEHICLE CONTROL															*TOTALS											
	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	1	1.0
	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	1.0
	8	8	8	8	8	8	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	15	1.0
	6	6	6	6	6	6	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	14	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	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	1	1.0
	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	4	1.0
	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	4	1.0
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5												

Epidermis, Hyperplasia, Focal  
 Musculoskeletal System  
 NONE  
 Nervous System  
 NONE  
 Respiratory System  
 Lung + + + + + + + + + + + + + + 15  
 Perivascular, Infiltration Cellular, Lymphocyte, Focal 1 1 1.0  
 Special Senses System  
 NONE  
 Urinary System  
 Kidney + + + + + A + + + + + + + + 14  
 Renal Tubule, Degeneration, Focal 1 1.0  
 Renal Tubule, Dilatation, Focal 1 1 4 1.0

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
 M ..Missing tissue  
 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
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Date Report Requested: 10/20/2014  
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 First Dose M/F: NA / NA  
 Lab: MBA

**FVB/N Mouse Male**  
**4.0 MG/KG**

DAY ON TEST	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
	8	8	8	8	8	8	4	8	8	4	8	7	8	8	3
	6	6	2	6	6	6	8	6	6	5	6	3	6	6	3
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
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
	<b>*TOTALS</b>														

**Alimentary System**

Intestine Large, Cecum	+	+	+	+	+	+	A	+	+	A	+	+	+	+	+	13	
Intestine Large, Colon	+	+	+	+	+	+	A	+	+	A	+	+	+	+	+	13	
Intestine Large, Rectum	+	+	+	+	+	+	A	+	+	A	+	+	+	+	+	13	
Intestine Small, Duodenum	+	+	+	+	+	+	A	+	+	A	+	+	+	+	+	13	
Epithelium, Necrosis	3	3			3	3		3	3		2		3	3		9	2.9
Intestine Small, Ileum	+	+	+	+	+	+	A	+	+	A	+	+	+	+	A	12	
Epithelium, Necrosis	3				2	3		2	3		2		3	2		8	2.5
Intestine Small, Jejunum	+	+	+	+	+	+	A	+	+	A	+	+	+	+	A	12	
Epithelium, Necrosis	3				2	3		2	3		2		3	2		8	2.5
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Hepatocyte, Necrosis, Focal					1								1			2	1.0
Pancreas													+			1	
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Tooth	+	+				+		+	+				+		+	7	
Inflammation, Chronic Active, Diffuse															4	1	4.0

**Cardiovascular System**

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
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**Endocrine System**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
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\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

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 CAS Number: 148-82-3

Date Report Requested: 10/20/2014  
 Time Report Requested: 04:55:33  
 First Dose M/F: NA / NA  
 Lab: MBA

**FVB/N Mouse Male**  
**4.0 MG/KG**

	DAY ON TEST																
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	*TOTALS	
	8	8	8	8	8	8	4	8	8	4	8	7	8	8	3		
	6	6	2	6	6	6	8	6	6	5	6	3	6	6	3		
Atrophy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	3.1
Hypertrophy, Focal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	1.0
Zona Reticul, Vacuolization Cytoplasmic, Focal	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1.0
Adrenal Medulla	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	15	
Pituitary Gland	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	13	
Thyroid Gland																15	
Cyst, Focal												1				1	1.0
<b>General Body System</b>																	
NONE																	
<b>Genital System</b>																	
Epididymis																15	
Penis																1	
Testes																15	
Germinal Epith, Degeneration	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	15	4.0
<b>Hematopoietic System</b>																	
Bone Marrow							A									14	
Lymph Node																1	
Lymph Node, Mandibular																15	
Lymph Node, Mediastinal			M						I			M			M	11	
Lymph Node, Mesenteric							A								M	13	

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

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1-4 ..Lesion qualified as:

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Test Type: 26-WEEK

Route: SKIN APPLICATION

Species/Strain: Mouse/FVB/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**

Test Compound: Transgenic model evaluation (Melphalan)

CAS Number: 148-82-3

Date Report Requested: 10/20/2014

Time Report Requested: 04:55:34

First Dose M/F: NA / NA

Lab: MBA

**FVB/N Mouse Male**  
**4.0 MG/KG**

	DAY ON TEST																
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	*TOTALS	
	8	8	8	8	8	8	4	8	8	4	8	7	8	8	3		
	6	6	2	6	6	6	6	6	5	6	3	6	6	6	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8		
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0		
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Hematopoietic Cell Proliferation	2	3		1	1	2		2	2		3		3	3	1	11	2.1
Lymph Follic, Depletion Cellular				3					2					4		3	3.0
Pigmentation	1	2		1	1	1			1		1		1	1		9	1.1
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	14	
Atrophy, Diffuse			4						4	4				4		4	4.0
Atrophy, Focal	2															1	2.0
<b>Integumentary System</b>																	
Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	0	
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Subcut Tiss, Inflammation, Chronic Active, Focal															4	1	4.0
<b>Musculoskeletal System</b>																	
NONE																	
<b>Nervous System</b>																	
NONE																	
<b>Respiratory System</b>																	
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Alveolar Epith, Hyperplasia, Focal	1		4	1		1						2				5	1.8
Alveolus, Inflammation, Chronic Active, Focal	1				1						1					3	1.0
Inflammation, Chronic Active, Focal										1						1	1.0

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+ ..Tissue examined microscopically

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

**FVB/N Mouse Male**  
**4.0 MG/KG**

DAY ON TEST	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
	8	8	8	8	8	8	4	8	8	4	8	7	8	8	3
	6	6	2	6	6	6	8	6	6	5	6	3	6	6	3
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
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
	<b>*TOTALS</b>														

**Special Senses System**

Eye + 1  
 Retrobulbar, Inflammation, Chronic Active, Focal 4 1 4.0

**Urinary System**

Kidney + + + + + + + + + + + + + + 15  
 Renal Tubule, Dilatation, Diffuse 2 2 2 2.0  
 Renal Tubule, Dilatation, Focal 2 2 2 2.0

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

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+ ..Tissue examined microscopically

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FVB/N Mouse Female VEHICLE CONTROL	DAY ON TEST															*TOTALS
	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	
	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
	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	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	

**Alimentary System**

Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Hepatocyte, Necrosis, Focal			1	1	1	1	1	1	1					1		8 1.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15

**Cardiovascular System**

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
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**Endocrine System**

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Subcapsular, Hyperplasia, Focal	1	1	1	1	1	1	1	1	1	2						10 1.1
Zona Reticul, Vacuolization Cytoplasmic, Diffuse				2	2					4	3					4 2.8
Zona Reticul, Vacuolization Cytoplasmic, Focal	2	2						2	1	2			2	1	2	8 1.8
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

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M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97011-23  
 Test Type: 26-WEEK  
 Route: SKIN APPLICATION  
 Species/Strain: Mouse/FVB/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Transgenic model evaluation (Melphalan)  
 CAS Number: 148-82-3

Date Report Requested: 10/20/2014  
 Time Report Requested: 04:55:34  
 First Dose M/F: NA / NA  
 Lab: MBA

FVB/N Mouse Female VEHICLE CONTROL	DAY ON TEST															*TOTALS
	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	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
	5	5	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	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	
	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
General Body System																
NONE																
Genital System																
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Necrosis									4							
Rete Ovarii, Cyst									4							
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Endometrium, Hyperplasia, Cystic		1		1	1	1	1			1	3	1		2	1	
Hydrometra			2					3					4			
Hematopoietic System																
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node, Mediastinal	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hematopoietic Cell Proliferation	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	
Pigmentation	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Integumentary System																
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

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M ..Missing tissue

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BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 97011-23  
 Test Type: 26-WEEK  
 Route: SKIN APPLICATION  
 Species/Strain: Mouse/FVB/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Transgenic model evaluation (Melphalan)  
 CAS Number: 148-82-3

Date Report Requested: 10/20/2014  
 Time Report Requested: 04:55:34  
 First Dose M/F: NA / NA  
 Lab: MBA

FVB/N Mouse Female VEHICLE CONTROL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS
	ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Mammary Gland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Skin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Epidermis, SOA, Hyperplasia, Focal	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1 1.0
<b>Musculoskeletal System</b>																
NONE																
<b>Nervous System</b>																
NONE																
<b>Respiratory System</b>																
Lung	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	15
Alveolar Epith, Hyperplasia, Focal	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2 1.0
<b>Special Senses System</b>																
NONE																
<b>Urinary System</b>																
Kidney	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
Renal Tubule, Dilatation, Diffuse																2 1 2.0
Renal Tubule, Dilatation, Focal																1 1.0

\* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade  
 + ..Tissue examined microscopically  
 X ..Lesion present  
 I ..Insufficient tissue  
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 A ..Autolysis precludes evaluation  
 BLANK ..Not examined microscopically  
 1-4 ..Lesion qualified as:  
 1) Minimal 3) Moderate  
 2) Mild 4) Marked

Experiment Number: 97011-23  
 Test Type: 26-WEEK  
 Route: SKIN APPLICATION  
 Species/Strain: Mouse/FVB/N

**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Transgenic model evaluation (Melphalan)  
 CAS Number: 148-82-3

Date Report Requested: 10/20/2014  
 Time Report Requested: 04:55:34  
 First Dose M/F: NA / NA  
 Lab: MBA

FVB/N Mouse Female 4.0 MG/KG	DAY ON TEST															*TOTALS
	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	
	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
	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	
	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	
	9	9	9	9	0	0	0	0	0	0	0	0	0	0	1	
	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	

**Alimentary System**

Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Epithelium, Necrosis	3	3	3	2	3	2	3	2	3	3	3	3	2	3	2	15	2.7
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Epithelium, Necrosis	2	2	2	2	2	2	2	1	2	1	3	2	2	2	2	15	1.9
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Epithelium, Necrosis	2	2	3	2	3	3	2	2	2	3	3	2	2	3	3	15	2.5
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Hepatocyte, Necrosis, Focal			1													1	1.0
Hepatocyte, Vacuolization Cytoplasmic, Focal													2			1	2.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15	

**Cardiovascular System**

Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15
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**Endocrine System**

Adrenal Cortex	+	+	+		+	+	+	+	+	+	+	+	+	+	+	14	
Hypertrophy, Focal								1								1	1.0

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Experiment Number: 97011-23

Test Type: 26-WEEK

Route: SKIN APPLICATION

Species/Strain: Mouse/FVB/N

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Transgenic model evaluation (Melphalan)

CAS Number: 148-82-3

Date Report Requested: 10/20/2014

Time Report Requested: 04:55:34

First Dose M/F: NA / NA

Lab: MBA

FVB/N Mouse Female 4.0 MG/KG	DAY ON TEST																
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	*TOTALS	
	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8		
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
Subcapsular, Hyperplasia, Focal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1.0
Zona Reticul, Vacuolization Cytoplasmic, Diffuse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2.0
Zona Reticul, Vacuolization Cytoplasmic, Focal	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	10	1.4
Adrenal Medulla	9	9	9	9	0	0	0	0	0	0	0	0	0	0	1	15	
Pituitary Gland	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	15	
Thyroid Gland																15	
<b>General Body System</b>																	
NONE																	
<b>Genital System</b>																	
Ovary																15	
Periovarn Tiss, Hemorrhage, Focal																1	1.0
Uterus																15	
Endometrium, Hyperplasia, Cystic																11	1.5
<b>Hematopoietic System</b>																	
Bone Marrow																15	
Lymph Node, Mandibular																15	
Lymph Node, Mediastinal																15	
Lymph Node, Mesenteric																15	
Spleen																15	
Hematopoietic Cell Proliferation																15	2.5

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Experiment Number: 97011-23  
 Test Type: 26-WEEK  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
 Test Compound: Transgenic model evaluation (Melphalan)  
 CAS Number: 148-82-3

Date Report Requested: 10/20/2014  
 Time Report Requested: 04:55:34  
 First Dose M/F: NA / NA  
 Lab: MBA

FVB/N Mouse Female 4.0 MG/KG	DAY ON TEST																
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ANIMAL ID	1	1	1	1	1	1	1	1	1	1	1	1	1	1	*TOTALS		
	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
Pigmentation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	1.0	
Thymus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15		
Atrophy, Focal	9	9	9	9	0	0	0	0	0	0	0	0	0	1	2	1.0	
<b>Integumentary System</b>	6	7	8	9	0	1	2	3	4	5	6	7	8	9			
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15		
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15		
<b>Musculoskeletal System</b>																	
NONE																	
<b>Nervous System</b>																	
NONE																	
<b>Respiratory System</b>																	
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15		
Alveolar Epith, Hyperplasia, Focal	2							3	1		1	1		1	7	1.4	
Alveolus, Inflammation, Chronic Active, Focal								1			1				2	1.0	
<b>Special Senses System</b>																	
NONE																	
<b>Urinary System</b>																	
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	15		
Renal Tubule, Dilatation, Focal							1								1	1.0	

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**Experiment Number:** 97011-23  
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**P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL**  
**Test Compound:** Transgenic model evaluation (Melphalan)  
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**\*\* END OF REPORT \*\***

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