

**TDMS No.** 20101 - 02  
**Test Type:** 26-39 WEEKS  
**Route:** DOSED FEED  
**Species/Strain:** MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
**CAS Number:** 8013-11-4

**Date Report Requested:** 03/11/2010  
**Time Report Requested:** 11:54:36  
**First Dose M/F:** 06/26/07 / 06/25/07  
**Lab:** BAT

F1\_Rev.1\_MD

**C Number:** C20101B  
**Lock Date:** 09/03/2008  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.2.0

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**SUMMARY OF STATISTICALLY SIGNIFICANT ( $P \leq .05$ ) RESULTS IN THE ANALYSIS OF SENNA (POWDERED)**

**MALE MICE**

**Organ**

Adrenal Cortex: Subcapsular  
Epididymis: Epithelium  
Intestine Large, Cecum: Epithelium  
Intestine Large, Colon: Epithelium  
Kidney  
Liver  
Lymph Node, Mandibular  
Nose: Glands, Respiratory Epithelium  
Nose: Septum  
Preputial Gland: Duct  
Thymus: Medulla

**Morphology**

Hyperplasia  
Karyomegaly  
Hyperplasia  
Hyperplasia  
Mineralization  
Inflammation Chronic  
Atrophy  
Hyperplasia  
Hyalinization  
Ectasia  
Hyperplasia Lymphoid

**FEMALE MICE**

**Organ**

Adrenal Cortex: Subcapsular  
Intestine Large, Cecum: Epithelium  
Intestine Large, Colon: Epithelium  
Kidney  
Liver  
Nose: Glands, Respiratory Epithelium  
Nose: Septum  
Urinary Bladder  
Uterus: Endometrium

**Morphology**

Hyperplasia  
Hyperplasia  
Hyperplasia  
Nephropathy  
Inflammation Chronic  
Hyperplasia  
Hyalinization  
Infiltration Cellular Lymphocyte  
Hyperplasia Cystic

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Adrenal Cortex Hypertrophy</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	3/24 (13%)	1/25 (4%)	2/25 (8%)	1/25 (4%)	1/25 (4%)	4/25 (16%)
<b>POLY-3 RATE (b)</b>	3/24.00	1/24.59	2/25.00	1/25.00	1/24.69	4/24.00
<b>POLY-3 PERCENT (g)</b>	12.5%	4.1%	8%	4%	4.1%	16.7%
<b>TERMINAL (d)</b>	3/24 (13%)	1/24 (4%)	2/25 (8%)	1/25 (4%)	1/23 (4%)	4/24 (17%)
<b>FIRST INCIDENCE</b>	276 (T)	276 (T)	276 (T)	276 (T)	276 (T)	276 (T)
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.143	P=0.294N	P=0.481N	P=0.288N	P=0.292N	P=0.500
<b>POLY 1.5</b>	P=0.143	P=0.291N	P=0.481N	P=0.288N	P=0.290N	P=0.501
<b>POLY 6</b>	P=0.144	P=0.297N	P=0.481N	P=0.288N	P=0.296N	P=0.500
<b>COCH-ARM / FISHERS</b>	P=0.151	P=0.289N	P=0.480N	P=0.289N	P=0.289N	P=0.524
<b>MAX-ISO-POLY-3</b>	P=0.191	P=0.144N	P=0.306N	P=0.142N	P=0.143N	P=0.345

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Adrenal Cortex: Subcapsular Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	4/24 (17%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	8/25 (32%)
POLY-3 RATE (b)	4/24.00	0/24.59	0/25.00	0/25.00	0/24.69	8/24.00
POLY-3 PERCENT (g)	16.7%	0%	0%	0%	0%	33.3%
TERMINAL (d)	4/24 (17%)	0/24 (0%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	8/24 (33%)
FIRST INCIDENCE	276 (T)	---	---	---	---	276 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P<0.001**	P=0.051N	P=0.049N*	P=0.049N*	P=0.050N*	P=0.159
POLY 1.5	P<0.001**	P=0.050N*	P=0.049N*	P=0.049N*	P=0.050N*	P=0.160
POLY 6	P<0.001**	P=0.052N	P=0.049N*	P=0.049N*	P=0.052N	P=0.159
COCH-ARM / FISHERS	P<0.001**	P=0.050N*	P=0.050N*	P=0.050N*	P=0.050N*	P=0.180
MAX-ISO-POLY-3	P<0.001**	P=0.015N*	P=0.015N*	P=0.015N*	P=0.015N*	P=0.094

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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Bone</b>						
<b>Fibro-osseous Lesion</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
<b>POLY-3 RATE (b)</b>	0/25.00	0/24.59	0/25.00	0/25.00	0/24.69	0/24.00
<b>POLY-3 PERCENT (g)</b>	0%	0%	0%	0%	0%	0%
<b>TERMINAL (d)</b>	0/25 (0%)	0/24 (0%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	0/24 (0%)
<b>FIRST INCIDENCE</b>	---	---	---	---	---	---
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	(e)	(e)	(e)	(e)	(e)	(e)
<b>POLY 1.5</b>	(e)	(e)	(e)	(e)	(e)	(e)
<b>POLY 6</b>	(e)	(e)	(e)	(e)	(e)	(e)
<b>COCH-ARM / FISHERS</b>	(e)	(e)	(e)	(e)	(e)	(e)
<b>MAX-ISO-POLY-3</b>	(e)	(e)	(e)	(e)	(e)	(e)

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TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Coagulating Gland: Epithelium Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	2/2 (100%)	0/0 (0%)	1/1 (100%)	0/0 (0%)	0/0 (0%)	3/3 (100%)
POLY-3 RATE (b)	2/2.00	0/0.00	1/1.00	0/0.00	0/0.00	3/3.00
POLY-3 PERCENT (g)	100%	0%	100%	0%	0%	100%
TERMINAL (d)	2/2 (100%)	0/0 (0%)	1/1 (100%)	0/0 (0%)	0/0 (0%)	3/3 (100%)
FIRST INCIDENCE	276 (T)	---	276 (T)	---	---	276 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

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 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Epididymis: Epithelium</b>						
<b>Karyomegaly</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	14/25 (56%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	1/25 (4%)	14/25 (56%)
<b>POLY-3 RATE (b)</b>	14/25.00	0/24.59	0/25.00	0/25.00	1/24.90	14/25.00
<b>POLY-3 PERCENT (g)</b>	56%	0%	0%	0%	4%	56%
<b>TERMINAL (d)</b>	14/25 (56%)	0/24 (0%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	13/24 (54%)
<b>FIRST INCIDENCE</b>	276 (T)	---	---	---	256	22
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.610
<b>POLY 1.5</b>	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.610
<b>POLY 6</b>	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.610
<b>COCH-ARM / FISHERS</b>	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.612N
<b>MAX-ISO-POLY-3</b>	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=1.000

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 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Heart</b>						
<b>Cardiomyopathy</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (b)	0/25.00	0/24.59	0/25.00	0/25.00	0/24.69	0/24.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/25 (0%)	0/24 (0%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	0/24 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)



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**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Intestine Large, Cecum: Epithelium Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	22/25 (88%)
POLY-3 RATE (b)	0/25.00	0/24.59	0/25.00	0/25.00	0/23.00	22/24.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	91.7%
TERMINAL (d)	0/25 (0%)	0/24 (0%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	22/24 (92%)
FIRST INCIDENCE	---	---	---	---	---	276 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P<0.001**	(e)	(e)	(e)	(e)	P<0.001**
POLY 1.5	P<0.001**	(e)	(e)	(e)	(e)	P<0.001**
POLY 6	P<0.001**	(e)	(e)	(e)	(e)	P<0.001**
COCH-ARM / FISHERS	P<0.001**	(e)	(e)	(e)	(e)	P<0.001**
MAX-ISO-POLY-3	P<0.001**	(e)	(e)	(e)	(e)	P<0.001**

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 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Intestine Large, Colon: Epithelium Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	3/24 (13%)	25/25 (100%)
POLY-3 RATE (b)	0/25.00	0/24.59	0/25.00	0/25.00	3/23.90	25/25.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	12.6%	100%
TERMINAL (d)	0/25 (0%)	0/24 (0%)	0/25 (0%)	0/25 (0%)	3/23 (13%)	24/24 (100%)
FIRST INCIDENCE	---	---	---	---	276 (T)	22
<b>STATISTICAL TESTS</b>						
POLY 3	P<0.001**	(e)	(e)	(e)	P=0.106	P<0.001**
POLY 1.5	P<0.001**	(e)	(e)	(e)	P=0.106	P<0.001**
POLY 6	P<0.001**	(e)	(e)	(e)	P=0.105	P<0.001**
COCH-ARM / FISHERS	P<0.001**	(e)	(e)	(e)	P=0.110	P<0.001**
MAX-ISO-POLY-3	P<0.001**	(e)	(e)	(e)	P=0.033*	(e)

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TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Kidney Mineralization</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	4/25 (16%)	1/25 (4%)	0/25 (0%)	1/25 (4%)	0/25 (0%)
POLY-3 RATE (b)	0/25.00	4/24.59	1/25.00	0/25.00	1/24.69	0/24.00
POLY-3 PERCENT (g)	0%	16.3%	4%	0%	4.1%	0%
TERMINAL (d)	0/25 (0%)	4/24 (17%)	1/25 (4%)	0/25 (0%)	1/23 (4%)	0/24 (0%)
FIRST INCIDENCE	---	276 (T)	276 (T)	---	276 (T)	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.204N	P=0.052	P=0.500	(e)	P=0.498	(e)
POLY 1.5	P=0.203N	P=0.053	P=0.500	(e)	P=0.499	(e)
POLY 6	P=0.206N	P=0.051	P=0.500	(e)	P=0.495	(e)
COCH-ARM / FISHERS	P=0.199N	P=0.055	P=0.500	(e)	P=0.500	(e)
MAX-ISO-POLY-3	P=0.140N	P=0.016*	P=0.158	(e)	P=0.158	(e)

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 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Kidney Nephropathy</b>						
<b>LESION RATES</b>						
OVERALL (a)	7/25 (28%)	7/25 (28%)	7/25 (28%)	7/25 (28%)	9/25 (36%)	8/25 (32%)
POLY-3 RATE (b)	7/25.00	7/24.59	7/25.00	7/25.00	9/24.69	8/24.00
POLY-3 PERCENT (g)	28%	28.5%	28%	28%	36.5%	33.3%
TERMINAL (d)	7/25 (28%)	7/24 (29%)	7/25 (28%)	7/25 (28%)	9/23 (39%)	8/24 (33%)
FIRST INCIDENCE	276 (T)	276 (T)	276 (T)	276 (T)	276 (T)	276 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.355	P=0.608	P=0.621	P=0.621	P=0.371	P=0.463
POLY 1.5	P=0.354	P=0.614	P=0.621	P=0.621	P=0.377	P=0.464
POLY 6	P=0.357	P=0.599	P=0.621	P=0.621	P=0.362	P=0.463
COCH-ARM / FISHERS	P=0.395	P=0.623N	P=0.623N	P=0.623N	P=0.381	P=0.500
MAX-ISO-POLY-3	P=0.560	P=0.485	P=1.000	P=1.000	P=0.266	P=0.348

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 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Liver</b>						
<b>Basophilic Focus</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	2/25 (8%)	3/25 (12%)	2/25 (8%)	0/25 (0%)	0/25 (0%)	4/25 (16%)
<b>POLY-3 RATE (b)</b>	2/25.00	3/24.59	2/25.00	0/25.00	0/24.69	4/24.00
<b>POLY-3 PERCENT (g)</b>	8%	12.2%	8%	0%	0%	16.7%
<b>TERMINAL (d)</b>	2/25 (8%)	3/24 (13%)	2/25 (8%)	0/25 (0%)	0/23 (0%)	4/24 (17%)
<b>FIRST INCIDENCE</b>	276 (T)	276 (T)	276 (T)	---	---	276 (T)
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.156	P=0.492	P=0.695	P=0.235N	P=0.238N	P=0.314
<b>POLY 1.5</b>	P=0.156	P=0.496	P=0.695	P=0.235N	P=0.236N	P=0.315
<b>POLY 6</b>	P=0.155	P=0.488	P=0.695	P=0.235N	P=0.240N	P=0.314
<b>COCH-ARM / FISHERS</b>	P=0.166	P=0.500	P=0.695N	P=0.245N	P=0.245N	P=0.334
<b>MAX-ISO-POLY-3</b>	P=0.136	P=0.316	P=1.000	P=0.074N	P=0.076N	P=0.184

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Liver</b>						
<b>Hematopoietic Cell Proliferation</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	0/25 (0%)	2/25 (8%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
<b>POLY-3 RATE (b)</b>	0/25.00	2/25.00	0/25.00	0/25.00	0/24.69	0/24.00
<b>POLY-3 PERCENT (g)</b>	0%	8%	0%	0%	0%	0%
<b>TERMINAL (d)</b>	0/25 (0%)	1/24 (4%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	0/24 (0%)
<b>FIRST INCIDENCE</b>	---	231	---	---	---	---
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.413N	P=0.235	(e)	(e)	(e)	(e)
<b>POLY 1.5</b>	P=0.413N	P=0.235	(e)	(e)	(e)	(e)
<b>POLY 6</b>	P=0.414N	P=0.235	(e)	(e)	(e)	(e)
<b>COCH-ARM / FISHERS</b>	P=0.413N	P=0.245	(e)	(e)	(e)	(e)
<b>MAX-ISO-POLY-3</b>	P=0.213N	P=0.074	(e)	(e)	(e)	(e)

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Liver</b>						
<b>Infiltration Cellular Mixed Cell</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
<b>POLY-3 RATE (b)</b>	0/25.00	0/24.59	0/25.00	0/25.00	0/24.69	0/24.00
<b>POLY-3 PERCENT (g)</b>	0%	0%	0%	0%	0%	0%
<b>TERMINAL (d)</b>	0/25 (0%)	0/24 (0%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	0/24 (0%)
<b>FIRST INCIDENCE</b>	---	---	---	---	---	---
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	(e)	(e)	(e)	(e)	(e)	(e)
<b>POLY 1.5</b>	(e)	(e)	(e)	(e)	(e)	(e)
<b>POLY 6</b>	(e)	(e)	(e)	(e)	(e)	(e)
<b>COCH-ARM / FISHERS</b>	(e)	(e)	(e)	(e)	(e)	(e)
<b>MAX-ISO-POLY-3</b>	(e)	(e)	(e)	(e)	(e)	(e)

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Liver</b>						
<b>Inflammation Chronic</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	15/25 (60%)	17/25 (68%)	19/25 (76%)	22/25 (88%)	14/25 (56%)	10/25 (40%)
<b>POLY-3 RATE (b)</b>	15/25.00	17/24.59	19/25.00	22/25.00	14/24.69	10/24.00
<b>POLY-3 PERCENT (g)</b>	60%	69.1%	76%	88%	56.7%	41.7%
<b>TERMINAL (d)</b>	15/25 (60%)	17/24 (71%)	19/25 (76%)	22/25 (88%)	14/23 (61%)	10/24 (42%)
<b>FIRST INCIDENCE</b>	276 (T)	276 (T)	276 (T)	276 (T)	276 (T)	276 (T)
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.004N**	P=0.355	P=0.183	P=0.023*	P=0.520N	P=0.160N
<b>POLY 1.5</b>	P=0.004N**	P=0.368	P=0.183	P=0.023*	P=0.511N	P=0.159N
<b>POLY 6</b>	P=0.003N**	P=0.337	P=0.183	P=0.023*	P=0.537N	P=0.160N
<b>COCH-ARM / FISHERS</b>	P=0.003N**	P=0.384	P=0.182	P=0.025*	P=0.500N	P=0.129N
<b>MAX-ISO-POLY-3</b>	P=0.006N**	P=0.254	P=0.113	P=0.010**	P=0.408N	P=0.104N



TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Lymph Node, Mandibular Atrophy</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	0/25 (0%)	3/25 (12%)	2/24 (8%)	0/25 (0%)
POLY-3 RATE (b)	0/25.00	0/24.59	0/25.00	3/25.00	2/23.90	0/24.00
POLY-3 PERCENT (g)	0%	0%	0%	12%	8.4%	0%
TERMINAL (d)	0/25 (0%)	0/24 (0%)	0/25 (0%)	3/25 (12%)	2/23 (9%)	0/24 (0%)
FIRST INCIDENCE	---	---	---	276 (T)	276 (T)	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.543N	(e)	(e)	P=0.114	P=0.225	(e)
POLY 1.5	P=0.544N	(e)	(e)	P=0.114	P=0.225	(e)
POLY 6	P=0.542N	(e)	(e)	P=0.114	P=0.224	(e)
COCH-ARM / FISHERS	P=0.526N	(e)	(e)	P=0.117	P=0.235	(e)
MAX-ISO-POLY-3	P=0.174	(e)	(e)	P=0.035*	P=0.072	(e)

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Lymph Node, Mandibular Hyperplasia Lymphoid</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	1/25 (4%)	2/25 (8%)	0/24 (0%)	0/25 (0%)
POLY-3 RATE (b)	0/25.00	0/24.59	1/25.00	2/25.00	0/23.90	0/24.00
POLY-3 PERCENT (g)	0%	0%	4%	8%	0%	0%
TERMINAL (d)	0/25 (0%)	0/24 (0%)	1/25 (4%)	2/25 (8%)	0/23 (0%)	0/24 (0%)
FIRST INCIDENCE	---	---	276 (T)	276 (T)	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.415N	(e)	P=0.500	P=0.235	(e)	(e)
POLY 1.5	P=0.415N	(e)	P=0.500	P=0.235	(e)	(e)
POLY 6	P=0.413N	(e)	P=0.500	P=0.235	(e)	(e)
COCH-ARM / FISHERS	P=0.410N	(e)	P=0.500	P=0.245	(e)	(e)
MAX-ISO-POLY-3	P=0.423	(e)	P=0.158	P=0.074	(e)	(e)

TDMS No. 20101 - 02  
Test Type: 26-39 WEEKS

Route: DOSED FEED  
Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
CAS Number: 8013-11-4

Date Report Requested: 03/11/2010

Time Report Requested: 11:54:36

First Dose M/F: 06/26/07 / 06/25/07

Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Lymph Node, Mesenteric Atrophy</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/24 (0%)	2/25 (8%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (b)	0/24.00	2/25.00	0/25.00	0/25.00	0/24.69	0/24.00
POLY-3 PERCENT (g)	0%	8%	0%	0%	0%	0%
TERMINAL (d)	0/24 (0%)	1/24 (4%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	0/24 (0%)
FIRST INCIDENCE	---	231	---	---	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.411N	P=0.244	(e)	(e)	(e)	(e)
POLY 1.5	P=0.411N	P=0.244	(e)	(e)	(e)	(e)
POLY 6	P=0.412N	P=0.244	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.410N	P=0.255	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.205N	P=0.080	(e)	(e)	(e)	(e)

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Nose Inflammation</b>						
<b>LESION RATES</b>						
OVERALL (a)	2/25 (8%)	1/25 (4%)	2/25 (8%)	0/25 (0%)	1/25 (4%)	0/25 (0%)
POLY-3 RATE (b)	2/25.00	1/24.59	2/25.00	0/25.00	1/24.80	0/24.00
POLY-3 PERCENT (g)	8%	4.1%	8%	0%	4%	0%
TERMINAL (d)	2/25 (8%)	1/24 (4%)	2/25 (8%)	0/25 (0%)	0/23 (0%)	0/24 (0%)
FIRST INCIDENCE	276 (T)	276 (T)	276 (T)	---	266	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.207N	P=0.506N	P=0.695	P=0.235N	P=0.503N	P=0.244N
POLY 1.5	P=0.207N	P=0.503N	P=0.695	P=0.235N	P=0.501N	P=0.244N
POLY 6	P=0.206N	P=0.509N	P=0.695	P=0.235N	P=0.505N	P=0.244N
COCH-ARM / FISHERS	P=0.199N	P=0.500N	P=0.695N	P=0.245N	P=0.500N	P=0.245N
MAX-ISO-POLY-3	P=0.155N	P=0.286N	P=1.000	P=0.074N	P=0.282N	P=0.082N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Nose: Glands, Respiratory Epithelium Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	1/25 (4%)	6/25 (24%)	2/25 (8%)	2/25 (8%)	3/25 (12%)	0/25 (0%)
POLY-3 RATE (b)	1/25.00	6/24.59	2/25.00	2/25.00	3/24.69	0/24.00
POLY-3 PERCENT (g)	4%	24.4%	8%	8%	12.2%	0%
TERMINAL (d)	1/25 (4%)	6/24 (25%)	2/25 (8%)	2/25 (8%)	3/23 (13%)	0/24 (0%)
FIRST INCIDENCE	276 (T)	276 (T)	276 (T)	276 (T)	276 (T)	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.085N	P=0.045*	P=0.500	P=0.500	P=0.298	P=0.508N
POLY 1.5	P=0.084N	P=0.046*	P=0.500	P=0.500	P=0.300	P=0.508N
POLY 6	P=0.085N	P=0.043*	P=0.500	P=0.500	P=0.294	P=0.508N
COCH-ARM / FISHERS	P=0.078N	P=0.049*	P=0.500	P=0.500	P=0.305	P=0.500N
MAX-ISO-POLY-3	P=0.086N	P=0.018*	P=0.279	P=0.279	P=0.148	P=0.168N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Nose: Respiratory Epithelium Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	2/25 (8%)	0/25 (0%)	1/25 (4%)	2/25 (8%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (b)	2/25.00	0/24.59	1/25.00	2/25.00	0/24.69	1/24.00
POLY-3 PERCENT (g)	8%	0%	4%	8%	0%	4.2%
TERMINAL (d)	2/25 (8%)	0/24 (0%)	1/25 (4%)	2/25 (8%)	0/23 (0%)	1/24 (4%)
FIRST INCIDENCE	276 (T)	---	276 (T)	276 (T)	---	276 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.571N	P=0.239N	P=0.500N	P=0.695	P=0.238N	P=0.514N
POLY 1.5	P=0.572N	P=0.237N	P=0.500N	P=0.695	P=0.236N	P=0.514N
POLY 6	P=0.570N	P=0.241N	P=0.500N	P=0.695	P=0.240N	P=0.514N
COCH-ARM / FISHERS	P=0.565N	P=0.245N	P=0.500N	P=0.695N	P=0.245N	P=0.500N
MAX-ISO-POLY-3	P=0.284N	P=0.077N	P=0.279N	P=1.000	P=0.076N	P=0.295N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Nose: Septum Hyalinization</b>						
<b>LESION RATES</b>						
OVERALL (a)	15/25 (60%)	1/25 (4%)	0/25 (0%)	0/25 (0%)	2/25 (8%)	16/25 (64%)
POLY-3 RATE (b)	15/25.00	1/25.00	0/25.00	0/25.00	2/25.00	16/25.00
POLY-3 PERCENT (g)	60%	4%	0%	0%	8%	64%
TERMINAL (d)	15/25 (60%)	0/24 (0%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	15/24 (63%)
FIRST INCIDENCE	276 (T)	231	---	---	256	22
<b>STATISTICAL TESTS</b>						
POLY 3	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.500
POLY 1.5	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.500
POLY 6	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.500
COCH-ARM / FISHERS	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.500
MAX-ISO-POLY-3	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.387

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Preputial Gland: Duct Ectasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	4/25 (16%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/23 (9%)
POLY-3 RATE (b)	4/25.00	0/24.59	0/25.00	0/25.00	0/24.69	2/23.00
POLY-3 PERCENT (g)	16%	0%	0%	0%	0%	8.7%
TERMINAL (d)	4/25 (16%)	0/24 (0%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	2/23 (9%)
FIRST INCIDENCE	276 (T)	---	---	---	---	276 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.370	P=0.056N	P=0.054N	P=0.054N	P=0.056N	P=0.373N
POLY 1.5	P=0.369	P=0.056N	P=0.054N	P=0.054N	P=0.055N	P=0.373N
POLY 6	P=0.372	P=0.058N	P=0.054N	P=0.054N	P=0.057N	P=0.373N
COCH-ARM / FISHERS	P=0.372	P=0.055N	P=0.055N	P=0.055N	P=0.055N	P=0.375N
MAX-ISO-POLY-3	P=0.010N**	P=0.018N*	P=0.016N*	P=0.016N*	P=0.017N*	P=0.229N



TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Prostate</b>						
<b>Infiltration Cellular Mononuclear Cell</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	1/25 (4%)	0/25 (0%)	2/25 (8%)	1/25 (4%)	0/25 (0%)	0/25 (0%)
<b>POLY-3 RATE (b)</b>	1/25.00	0/24.59	2/25.00	1/25.00	0/24.69	0/24.00
<b>POLY-3 PERCENT (g)</b>	4%	0%	8%	4%	0%	0%
<b>TERMINAL (d)</b>	1/25 (4%)	0/24 (0%)	2/25 (8%)	1/25 (4%)	0/23 (0%)	0/24 (0%)
<b>FIRST INCIDENCE</b>	276 (T)	---	276 (T)	276 (T)	---	---
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.264N	P=0.503N	P=0.500	P=0.760	P=0.502N	P=0.508N
<b>POLY 1.5</b>	P=0.265N	P=0.502N	P=0.500	P=0.760	P=0.501N	P=0.508N
<b>POLY 6</b>	P=0.263N	P=0.505N	P=0.500	P=0.760	P=0.505N	P=0.508N
<b>COCH-ARM / FISHERS</b>	P=0.260N	P=0.500N	P=0.500	P=0.755N	P=0.500N	P=0.500N
<b>MAX-ISO-POLY-3</b>	P=0.370N	P=0.162N	P=0.279	P=1.000	P=0.161N	P=0.168N

TDMS No. 20101 - 02  
Test Type: 26-39 WEEKS

Route: DOSED FEED  
Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
CAS Number: 8013-11-4

Date Report Requested: 03/11/2010

Time Report Requested: 11:54:36

First Dose M/F: 06/26/07 / 06/25/07

Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Spinal Cord Degeneration</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
POLY-3 RATE (b)	0/0.00	0/0.00	0/0.00	0/0.00	0/0.00	0/0.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

TDMS No. 20101 - 02  
Test Type: 26-39 WEEKS

Route: DOSED FEED  
Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
CAS Number: 8013-11-4

Date Report Requested: 03/11/2010

Time Report Requested: 11:54:36

First Dose M/F: 06/26/07 / 06/25/07

Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Spleen: Lymphoid Follicle Atrophy</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	2/25 (8%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	1/25 (4%)
POLY-3 RATE (b)	0/25.00	2/25.00	0/25.00	0/25.00	0/23.00	1/25.00
POLY-3 PERCENT (g)	0%	8%	0%	0%	0%	4%
TERMINAL (d)	0/25 (0%)	1/24 (4%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	0/24 (0%)
FIRST INCIDENCE	---	231	---	---	---	22
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.531	P=0.235	(e)	(e)	(e)	P=0.500
POLY 1.5	P=0.531	P=0.235	(e)	(e)	(e)	P=0.500
POLY 6	P=0.531	P=0.235	(e)	(e)	(e)	P=0.500
COCH-ARM / FISHERS	P=0.531	P=0.245	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	P=0.291	P=0.074	(e)	(e)	(e)	P=0.158

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Spleen: Lymphoid Follicle Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	1/25 (4%)	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	1/25 (4%)
POLY-3 RATE (b)	1/25.00	1/24.59	0/25.00	0/25.00	0/23.00	1/24.00
POLY-3 PERCENT (g)	4%	4.1%	0%	0%	0%	4.2%
TERMINAL (d)	1/25 (4%)	1/24 (4%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	1/24 (4%)
FIRST INCIDENCE	276 (T)	276 (T)	---	---	---	276 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.528	P=0.757	P=0.500N	P=0.500N	P=0.517N	P=0.751
POLY 1.5	P=0.528	P=0.758	P=0.500N	P=0.500N	P=0.517N	P=0.751
POLY 6	P=0.528	P=0.754	P=0.500N	P=0.500N	P=0.517N	P=0.751
COCH-ARM / FISHERS	P=0.537	P=0.755N	P=0.500N	P=0.500N	P=0.521N	P=0.755N
MAX-ISO-POLY-3	P=0.438N	P=0.495	P=0.158N	P=0.158N	P=0.173N	P=0.488

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Stomach, Glandular: Glands Cyst</b>						
<b>LESION RATES</b>						
OVERALL (a)	2/25 (8%)	2/25 (8%)	2/25 (8%)	0/25 (0%)	1/25 (4%)	0/25 (0%)
POLY-3 RATE (b)	2/25.00	2/24.59	2/25.00	0/25.00	1/24.69	0/24.00
POLY-3 PERCENT (g)	8%	8.1%	8%	0%	4.1%	0%
TERMINAL (d)	2/25 (8%)	2/24 (8%)	2/25 (8%)	0/25 (0%)	1/23 (4%)	0/24 (0%)
FIRST INCIDENCE	276 (T)	276 (T)	276 (T)	---	276 (T)	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.158N	P=0.689	P=0.695	P=0.235N	P=0.504N	P=0.244N
POLY 1.5	P=0.158N	P=0.692	P=0.695	P=0.235N	P=0.502N	P=0.244N
POLY 6	P=0.158N	P=0.686	P=0.695	P=0.235N	P=0.508N	P=0.244N
COCH-ARM / FISHERS	P=0.150N	P=0.695N	P=0.695N	P=0.245N	P=0.500N	P=0.245N
MAX-ISO-POLY-3	P=0.182N	P=0.493	P=1.000	P=0.074N	P=0.284N	P=0.082N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
Thymus Atrophy						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	1/24 (4%)	0/25 (0%)	2/25 (8%)	0/23 (0%)	1/25 (4%)
POLY-3 RATE (b)	0/25.00	1/24.00	0/25.00	2/25.00	0/23.00	1/25.00
POLY-3 PERCENT (g)	0%	4.2%	0%	8%	0%	4%
TERMINAL (d)	0/25 (0%)	0/23 (0%)	0/25 (0%)	2/25 (8%)	0/23 (0%)	0/24 (0%)
FIRST INCIDENCE	---	231	---	276 (T)	---	22
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.558	P=0.492	(e)	P=0.235	(e)	P=0.500
POLY 1.5	P=0.558	P=0.492	(e)	P=0.235	(e)	P=0.500
POLY 6	P=0.558	P=0.492	(e)	P=0.235	(e)	P=0.500
COCH-ARM / FISHERS	P=0.558	P=0.490	(e)	P=0.245	(e)	P=0.500
MAX-ISO-POLY-3	P=0.346	P=0.155	(e)	P=0.074	(e)	P=0.158

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Thymus: Medulla</b>						
<b>Hyperplasia Lymphoid</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	0/25 (0%)	2/24 (8%)	3/25 (12%)	2/25 (8%)	4/23 (17%)	0/25 (0%)
<b>POLY-3 RATE (b)</b>	0/25.00	2/23.59	3/25.00	2/25.00	4/23.00	0/24.00
<b>POLY-3 PERCENT (g)</b>	0%	8.5%	12%	8%	17.4%	0%
<b>TERMINAL (d)</b>	0/25 (0%)	2/23 (9%)	3/25 (12%)	2/25 (8%)	4/23 (17%)	0/24 (0%)
<b>FIRST INCIDENCE</b>	---	276 (T)	276 (T)	276 (T)	276 (T)	---
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.263N	P=0.222	P=0.114	P=0.235	P=0.044*	(e)
<b>POLY 1.5</b>	P=0.263N	P=0.224	P=0.114	P=0.235	P=0.044*	(e)
<b>POLY 6</b>	P=0.261N	P=0.220	P=0.114	P=0.235	P=0.044*	(e)
<b>COCH-ARM / FISHERS</b>	P=0.245N	P=0.235	P=0.117	P=0.245	P=0.046*	(e)
<b>MAX-ISO-POLY-3</b>	P=0.211	P=0.072	P=0.035*	P=0.074	P=0.014*	(e)

TDMS No. 20101 - 02  
Test Type: 26-39 WEEKS

Route: DOSED FEED  
Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
Time Report Requested: 11:54:36  
First Dose M/F: 06/26/07 / 06/25/07  
Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Males					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Urinary Bladder Infiltration Cellular Lymphocyte</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (b)	0/25.00	0/24.59	0/25.00	0/25.00	0/24.69	0/24.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/25 (0%)	0/24 (0%)	0/25 (0%)	0/25 (0%)	0/23 (0%)	0/24 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)



TDMS No. 20101 - 02  
Test Type: 26-39 WEEKS

Route: DOSED FEED  
Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Senna (powdered)  
CAS Number: 8013-11-4

Date Report Requested: 03/11/2010

Time Report Requested: 11:54:36

First Dose M/F: 06/26/07 / 06/25/07

Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Adrenal Cortex Hypertrophy</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (b)	0/24.46	0/24.37	1/24.32	0/23.37	0/23.09	0/24.89
POLY-3 PERCENT (g)	0%	0%	4.1%	0%	0%	0%
TERMINAL (d)	0/23 (0%)	0/23 (0%)	1/23 (4%)	0/22 (0%)	0/22 (0%)	0/24 (0%)
FIRST INCIDENCE	---	---	275 (T)	---	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.655N	(e)	P=0.499	(e)	(e)	(e)
POLY 1.5	P=0.655N	(e)	P=0.499	(e)	(e)	(e)
POLY 6	P=0.655N	(e)	P=0.498	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.654N	(e)	P=0.500	(e)	(e)	(e)
MAX-ISO-POLY-3	P=0.517N	(e)	P=0.158	(e)	(e)	(e)

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Adrenal Cortex: Subcapsular Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	16/25 (64%)	2/25 (8%)	1/25 (4%)	2/25 (8%)	1/25 (4%)	16/25 (64%)
POLY-3 RATE (b)	16/25.00	2/25.00	1/24.72	2/24.52	1/23.15	16/25.00
POLY-3 PERCENT (g)	64%	8%	4.1%	8.2%	4.3%	64%
TERMINAL (d)	14/23 (61%)	0/23 (0%)	0/23 (0%)	0/22 (0%)	0/22 (0%)	15/24 (63%)
FIRST INCIDENCE	225	221	232	204	269	264
<b>STATISTICAL TESTS</b>						
POLY 3	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.614
POLY 1.5	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.614
POLY 6	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.614
COCH-ARM / FISHERS	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.616N
MAX-ISO-POLY-3	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=1.000

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Bone</b>						
<b>Fibro-osseous Lesion</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	0/25 (0%)	2/25 (8%)	0/25 (0%)	2/25 (8%)	1/25 (4%)	1/25 (4%)
<b>POLY-3 RATE (b)</b>	0/24.46	2/24.37	0/24.32	2/23.37	1/23.15	1/24.89
<b>POLY-3 PERCENT (g)</b>	0%	8.2%	0%	8.6%	4.3%	4%
<b>TERMINAL (d)</b>	0/23 (0%)	2/23 (9%)	0/23 (0%)	2/22 (9%)	0/22 (0%)	1/24 (4%)
<b>FIRST INCIDENCE</b>	---	275 (T)	---	275 (T)	269	275 (T)
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.632	P=0.234	(e)	P=0.224	P=0.489	P=0.503
<b>POLY 1.5</b>	P=0.628	P=0.234	(e)	P=0.229	P=0.490	P=0.502
<b>POLY 6</b>	P=0.636	P=0.233	(e)	P=0.220	P=0.491	P=0.505
<b>COCH-ARM / FISHERS</b>	P=0.624	P=0.245	(e)	P=0.245	P=0.500	P=0.500
<b>MAX-ISO-POLY-3</b>	P=0.301	P=0.074	(e)	P=0.073	P=0.158	P=0.162

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Coagulating Gland: Epithelium Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
POLY-3 RATE (b)	0/0.00	0/0.00	0/0.00	0/0.00	0/0.00	0/0.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

TDMS No. 20101 - 02  
Test Type: 26-39 WEEKS

Route: DOSED FEED  
Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Senna (powdered)  
CAS Number: 8013-11-4

Date Report Requested: 03/11/2010

Time Report Requested: 11:54:36

First Dose M/F: 06/26/07 / 06/25/07

Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Heart</b>						
<b>Cardiomyopathy</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)	1/25 (4%)
POLY-3 RATE (b)	0/24.46	0/24.37	0/24.32	0/23.37	2/23.09	1/24.89
POLY-3 PERCENT (g)	0%	0%	0%	0%	8.7%	4%
TERMINAL (d)	0/23 (0%)	0/23 (0%)	0/23 (0%)	0/22 (0%)	2/22 (9%)	1/24 (4%)
FIRST INCIDENCE	---	---	---	---	275 (T)	275 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.202	(e)	(e)	(e)	P=0.222	P=0.503
POLY 1.5	P=0.198	(e)	(e)	(e)	P=0.223	P=0.502
POLY 6	P=0.207	(e)	(e)	(e)	P=0.223	P=0.505
COCH-ARM / FISHERS	P=0.192	(e)	(e)	(e)	P=0.245	P=0.500
MAX-ISO-POLY-3	P=0.110	(e)	(e)	(e)	P=0.073	P=0.162

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Intestine Large, Cecum: Epithelium Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	19/25 (76%)
POLY-3 RATE (b)	0/24.46	0/24.37	0/24.32	0/23.37	0/23.09	19/25.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	76%
TERMINAL (d)	0/23 (0%)	0/23 (0%)	0/23 (0%)	0/22 (0%)	0/22 (0%)	18/24 (75%)
FIRST INCIDENCE	---	---	---	---	---	264
<b>STATISTICAL TESTS</b>						
POLY 3	P<0.001**	(e)	(e)	(e)	(e)	P<0.001**
POLY 1.5	P<0.001**	(e)	(e)	(e)	(e)	P<0.001**
POLY 6	P<0.001**	(e)	(e)	(e)	(e)	P<0.001**
COCH-ARM / FISHERS	P<0.001**	(e)	(e)	(e)	(e)	P<0.001**
MAX-ISO-POLY-3	P<0.001**	(e)	(e)	(e)	(e)	P<0.001**

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS

Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010

Time Report Requested: 11:54:36

First Dose M/F: 06/26/07 / 06/25/07

Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Intestine Large, Colon: Epithelium Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	7/25 (28%)	25/25 (100%)
POLY-3 RATE (b)	0/24.46	0/24.37	0/24.32	0/23.37	7/23.09	25/25.00
POLY-3 PERCENT (g)	0%	0%	0%	0%	30.3%	100%
TERMINAL (d)	0/23 (0%)	0/23 (0%)	0/23 (0%)	0/22 (0%)	7/22 (32%)	24/24 (100%)
FIRST INCIDENCE	---	---	---	---	275 (T)	264
<b>STATISTICAL TESTS</b>						
POLY 3	P<0.001**	(e)	(e)	(e)	P=0.003**	P<0.001**
POLY 1.5	P<0.001**	(e)	(e)	(e)	P=0.003**	P<0.001**
POLY 6	P<0.001**	(e)	(e)	(e)	P=0.003**	P<0.001**
COCH-ARM / FISHERS	P<0.001**	(e)	(e)	(e)	P=0.005**	P<0.001**
MAX-ISO-POLY-3	P<0.001**	(e)	(e)	(e)	P<0.001**	P<0.001**

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Kidney Mineralization</b>						
<b>LESION RATES</b>						
OVERALL (a)	1/25 (4%)	0/25 (0%)	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (b)	1/24.46	0/24.37	1/24.60	0/23.37	0/23.09	0/24.89
POLY-3 PERCENT (g)	4.1%	0%	4.1%	0%	0%	0%
TERMINAL (d)	1/23 (4%)	0/23 (0%)	0/23 (0%)	0/22 (0%)	0/22 (0%)	0/24 (0%)
FIRST INCIDENCE	275 (T)	---	246	---	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.419N	P=0.501N	P=0.759N	P=0.509N	P=0.512N	P=0.497N
POLY 1.5	P=0.421N	P=0.500N	P=0.760N	P=0.506N	P=0.510N	P=0.498N
POLY 6	P=0.416N	P=0.501N	P=0.758N	P=0.513N	P=0.511N	P=0.495N
COCH-ARM / FISHERS	P=0.420N	P=0.500N	P=0.755N	P=0.500N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.204N	P=0.159N	P=0.498N	P=0.169N	P=0.172N	P=0.158N



TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Kidney Nephropathy</b>						
<b>LESION RATES</b>						
OVERALL (a)	3/25 (12%)	6/25 (24%)	5/25 (20%)	4/25 (16%)	9/25 (36%)	2/25 (8%)
POLY-3 RATE (b)	3/24.46	6/24.37	5/24.32	4/23.37	9/23.09	2/24.89
POLY-3 PERCENT (g)	12.3%	24.6%	20.6%	17.1%	39%	8%
TERMINAL (d)	3/23 (13%)	6/23 (26%)	5/23 (22%)	4/22 (18%)	9/22 (41%)	2/24 (8%)
FIRST INCIDENCE	275 (T)	275 (T)	275 (T)	275 (T)	275 (T)	275 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.200N	P=0.230	P=0.348	P=0.474	P=0.033*	P=0.492N
POLY 1.5	P=0.209N	P=0.231	P=0.350	P=0.484	P=0.035*	P=0.495N
POLY 6	P=0.189N	P=0.228	P=0.345	P=0.464	P=0.034*	P=0.488N
COCH-ARM / FISHERS	P=0.224N	P=0.232	P=0.351	P=0.500	P=0.048*	P=0.500N
MAX-ISO-POLY-3	P=0.181N	P=0.134	P=0.220	P=0.323	P=0.017*	P=0.315N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Liver</b>						
<b>Basophilic Focus</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (b)	0/24.46	0/24.37	0/24.32	0/23.37	0/23.09	1/24.89
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	4%
TERMINAL (d)	0/23 (0%)	0/23 (0%)	0/23 (0%)	0/22 (0%)	0/22 (0%)	1/24 (4%)
FIRST INCIDENCE	---	---	---	---	---	275 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.127	(e)	(e)	(e)	(e)	P=0.503
POLY 1.5	P=0.126	(e)	(e)	(e)	(e)	P=0.502
POLY 6	P=0.129	(e)	(e)	(e)	(e)	P=0.505
COCH-ARM / FISHERS	P=0.123	(e)	(e)	(e)	(e)	P=0.500
MAX-ISO-POLY-3	P=0.080	(e)	(e)	(e)	(e)	P=0.162

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Liver</b>						
<b>Hematopoietic Cell Proliferation</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	1/25 (4%)	1/25 (4%)
<b>POLY-3 RATE (b)</b>	1/24.55	0/24.37	0/24.32	0/23.37	1/23.09	1/24.89
<b>POLY-3 PERCENT (g)</b>	4.1%	0%	0%	0%	4.3%	4%
<b>TERMINAL (d)</b>	0/23 (0%)	0/23 (0%)	0/23 (0%)	0/22 (0%)	1/22 (5%)	1/24 (4%)
<b>FIRST INCIDENCE</b>	267	---	---	---	275 (T)	275 (T)
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.366	P=0.501N	P=0.502N	P=0.510N	P=0.747	P=0.757N
<b>POLY 1.5</b>	P=0.361	P=0.501N	P=0.501N	P=0.506N	P=0.749	P=0.759N
<b>POLY 6</b>	P=0.371	P=0.502N	P=0.504N	P=0.514N	P=0.747	P=0.756N
<b>COCH-ARM / FISHERS</b>	P=0.353	P=0.500N	P=0.500N	P=0.500N	P=0.755N	P=0.755N
<b>MAX-ISO-POLY-3</b>	P=0.409	P=0.160N	P=0.160N	P=0.170N	P=0.483	P=0.496N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Liver</b>						
<b>Infiltration Cellular Mixed Cell</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)	0/25 (0%)	0/25 (0%)
<b>POLY-3 RATE (b)</b>	0/24.46	0/24.37	0/24.32	2/23.85	0/23.09	0/24.89
<b>POLY-3 PERCENT (g)</b>	0%	0%	0%	8.4%	0%	0%
<b>TERMINAL (d)</b>	0/23 (0%)	0/23 (0%)	0/23 (0%)	1/22 (5%)	0/22 (0%)	0/24 (0%)
<b>FIRST INCIDENCE</b>	---	---	---	221	---	---
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.560N	(e)	(e)	P=0.229	(e)	(e)
<b>POLY 1.5</b>	P=0.560N	(e)	(e)	P=0.231	(e)	(e)
<b>POLY 6</b>	P=0.558N	(e)	(e)	P=0.227	(e)	(e)
<b>COCH-ARM / FISHERS</b>	P=0.556N	(e)	(e)	P=0.245	(e)	(e)
<b>MAX-ISO-POLY-3</b>	P=0.366	(e)	(e)	P=0.073	(e)	(e)

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Liver</b>						
<b>Inflammation Chronic</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	13/25 (52%)	2/25 (8%)	1/25 (4%)	5/25 (20%)	6/25 (24%)	9/25 (36%)
<b>POLY-3 RATE (b)</b>	13/24.92	2/24.37	1/24.32	5/23.37	6/23.09	9/25.00
<b>POLY-3 PERCENT (g)</b>	52.2%	8.2%	4.1%	21.4%	26%	36%
<b>TERMINAL (d)</b>	12/23 (52%)	2/23 (9%)	1/23 (4%)	5/22 (23%)	6/22 (27%)	8/24 (33%)
<b>FIRST INCIDENCE</b>	225	275 (T)	275 (T)	275 (T)	275 (T)	264
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.102	P<0.001N**	P<0.001N**	P=0.024N*	P=0.057N	P=0.195N
<b>POLY 1.5</b>	P=0.095	P<0.001N**	P<0.001N**	P=0.020N*	P=0.052N	P=0.196N
<b>POLY 6</b>	P=0.112	P<0.001N**	P<0.001N**	P=0.029N*	P=0.058N	P=0.192N
<b>COCH-ARM / FISHERS</b>	P=0.102	P<0.001N**	P<0.001N**	P=0.019N*	P=0.040N*	P=0.197N
<b>MAX-ISO-POLY-3</b>	P=0.003N**	P<0.001N**	P<0.001N**	P=0.013N*	P=0.034N*	P=0.126N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Lymph Node, Mandibular Atrophy</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	1/25 (4%)	2/25 (8%)	1/25 (4%)	1/25 (4%)
POLY-3 RATE (b)	0/24.46	0/24.37	1/24.32	2/23.37	1/23.09	1/24.89
POLY-3 PERCENT (g)	0%	0%	4.1%	8.6%	4.3%	4%
TERMINAL (d)	0/23 (0%)	0/23 (0%)	1/23 (4%)	2/22 (9%)	1/22 (5%)	1/24 (4%)
FIRST INCIDENCE	---	---	275 (T)	275 (T)	275 (T)	275 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.517	(e)	P=0.499	P=0.224	P=0.488	P=0.503
POLY 1.5	P=0.514	(e)	P=0.499	P=0.229	P=0.490	P=0.502
POLY 6	P=0.522	(e)	P=0.498	P=0.220	P=0.489	P=0.505
COCH-ARM / FISHERS	P=0.510	(e)	P=0.500	P=0.245	P=0.500	P=0.500
MAX-ISO-POLY-3	P=0.263	(e)	P=0.158	P=0.073	P=0.158	P=0.162

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Lymph Node, Mandibular Hyperplasia Lymphoid</b>						
<b>LESION RATES</b>						
OVERALL (a)	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (b)	1/24.46	0/24.37	0/24.32	0/23.37	0/23.09	0/24.89
POLY-3 PERCENT (g)	4.1%	0%	0%	0%	0%	0%
TERMINAL (d)	1/23 (4%)	0/23 (0%)	0/23 (0%)	0/22 (0%)	0/22 (0%)	0/24 (0%)
FIRST INCIDENCE	275 (T)	---	---	---	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.622N	P=0.501N	P=0.501N	P=0.509N	P=0.512N	P=0.497N
POLY 1.5	P=0.623N	P=0.500N	P=0.501N	P=0.506N	P=0.510N	P=0.498N
POLY 6	P=0.621N	P=0.501N	P=0.502N	P=0.513N	P=0.511N	P=0.495N
COCH-ARM / FISHERS	P=0.622N	P=0.500N	P=0.500N	P=0.500N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.075N	P=0.159N	P=0.159N	P=0.169N	P=0.172N	P=0.158N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Lymph Node, Mesenteric Atrophy</b>						
<b>LESION RATES</b>						
OVERALL (a)	1/23 (4%)	1/25 (4%)	2/25 (8%)	2/25 (8%)	2/25 (8%)	0/25 (0%)
POLY-3 RATE (b)	1/22.55	1/24.37	2/24.32	2/23.37	2/23.09	0/24.89
POLY-3 PERCENT (g)	4.4%	4.1%	8.2%	8.6%	8.7%	0%
TERMINAL (d)	0/21 (0%)	1/23 (4%)	2/23 (9%)	2/22 (9%)	2/22 (9%)	0/24 (0%)
FIRST INCIDENCE	267	275 (T)	275 (T)	275 (T)	275 (T)	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.224N	P=0.743N	P=0.526	P=0.513	P=0.508	P=0.480N
POLY 1.5	P=0.228N	P=0.743N	P=0.528	P=0.519	P=0.511	P=0.482N
POLY 6	P=0.220N	P=0.744N	P=0.524	P=0.505	P=0.509	P=0.479N
COCH-ARM / FISHERS	P=0.229N	P=0.734N	P=0.532	P=0.532	P=0.532	P=0.479N
MAX-ISO-POLY-3	P=0.299N	P=0.478N	P=0.304	P=0.290	P=0.288	P=0.152N



TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Nose Inflammation</b>						
<b>LESION RATES</b>						
OVERALL (a)	1/25 (4%)	1/25 (4%)	1/25 (4%)	3/25 (12%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (b)	1/24.46	1/24.37	1/24.32	3/23.96	0/23.09	1/24.89
POLY-3 PERCENT (g)	4.1%	4.1%	4.1%	12.5%	0%	4%
TERMINAL (d)	1/23 (4%)	1/23 (4%)	1/23 (4%)	2/22 (9%)	0/22 (0%)	1/24 (4%)
FIRST INCIDENCE	275 (T)	275 (T)	275 (T)	204	---	275 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.503N	P=0.760	P=0.759	P=0.295	P=0.512N	P=0.757N
POLY 1.5	P=0.505N	P=0.760	P=0.760	P=0.298	P=0.510N	P=0.758N
POLY 6	P=0.499N	P=0.759	P=0.758	P=0.292	P=0.511N	P=0.755N
COCH-ARM / FISHERS	P=0.504N	P=0.755N	P=0.755N	P=0.305	P=0.500N	P=0.755N
MAX-ISO-POLY-3	P=0.465N	P=0.499	P=0.498	P=0.146	P=0.172N	P=0.495N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Nose: Glands, Respiratory Epithelium Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	1/25 (4%)	6/25 (24%)	4/25 (16%)	4/25 (16%)	4/25 (16%)	0/25 (0%)
POLY-3 RATE (b)	1/24.46	6/24.37	4/24.32	4/23.37	4/23.09	0/24.89
POLY-3 PERCENT (g)	4.1%	24.6%	16.5%	17.1%	17.3%	0%
TERMINAL (d)	1/23 (4%)	6/23 (26%)	4/23 (17%)	4/22 (18%)	4/22 (18%)	0/24 (0%)
FIRST INCIDENCE	275 (T)	275 (T)	275 (T)	275 (T)	275 (T)	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.040N*	P=0.047*	P=0.170	P=0.158	P=0.155	P=0.497N
POLY 1.5	P=0.042N*	P=0.047*	P=0.172	P=0.164	P=0.157	P=0.498N
POLY 6	P=0.038N*	P=0.046*	P=0.169	P=0.152	P=0.156	P=0.495N
COCH-ARM / FISHERS	P=0.046N*	P=0.049*	P=0.174	P=0.174	P=0.174	P=0.500N
MAX-ISO-POLY-3	P=0.072N	P=0.018*	P=0.077	P=0.074	P=0.073	P=0.158N

TDMS No. 20101 - 02  
Test Type: 26-39 WEEKS

Route: DOSED FEED  
Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
Time Report Requested: 11:54:36  
First Dose M/F: 06/26/07 / 06/25/07  
Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Nose: Respiratory Epithelium Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (b)	0/24.46	0/24.37	0/24.32	0/23.37	0/23.09	0/24.89
POLY-3 PERCENT (g)	0%	0%	0%	0%	0%	0%
TERMINAL (d)	0/23 (0%)	0/23 (0%)	0/23 (0%)	0/22 (0%)	0/22 (0%)	0/24 (0%)
FIRST INCIDENCE	---	---	---	---	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	(e)	(e)
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Nose: Septum Hyalinization</b>						
<b>LESION RATES</b>						
OVERALL (a)	17/25 (68%)	2/25 (8%)	3/25 (12%)	2/25 (8%)	3/25 (12%)	15/25 (60%)
POLY-3 RATE (b)	17/25.00	2/25.00	3/25.00	2/24.41	3/25.00	15/25.00
POLY-3 PERCENT (g)	68%	8%	12%	8.2%	12%	60%
TERMINAL (d)	15/23 (65%)	0/23 (0%)	1/23 (4%)	0/22 (0%)	0/22 (0%)	14/24 (58%)
FIRST INCIDENCE	225	221	232	209	71	264
<b>STATISTICAL TESTS</b>						
POLY 3	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.386N
POLY 1.5	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.386N
POLY 6	P<0.001**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.386N
COCH-ARM / FISHERS	P=0.002**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.384N
MAX-ISO-POLY-3	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P<0.001N**	P=0.281N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Ovary Atrophy</b>						
<b>LESION RATES</b>						
OVERALL (a)	3/25 (12%)	3/25 (12%)	2/25 (8%)	3/25 (12%)	2/25 (8%)	4/25 (16%)
POLY-3 RATE (b)	3/24.46	3/24.37	2/24.32	3/23.37	2/23.15	4/24.89
POLY-3 PERCENT (g)	12.3%	12.3%	8.2%	12.8%	8.6%	16.1%
TERMINAL (d)	3/23 (13%)	3/23 (13%)	2/23 (9%)	3/22 (14%)	1/22 (5%)	4/24 (17%)
FIRST INCIDENCE	275 (T)	275 (T)	275 (T)	275 (T)	269	275 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.357	P=0.664	P=0.503N	P=0.644	P=0.525N	P=0.510
POLY 1.5	P=0.351	P=0.664	P=0.501N	P=0.653	P=0.523N	P=0.505
POLY 6	P=0.366	P=0.663	P=0.505N	P=0.635	P=0.522N	P=0.515
COCH-ARM / FISHERS	P=0.342	P=0.666N	P=0.500N	P=0.666N	P=0.500N	P=0.500
MAX-ISO-POLY-3	P=0.527	P=0.498	P=0.324N	P=0.476	P=0.347N	P=0.353

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
Ovary Cyst						
<b>LESION RATES</b>						
OVERALL (a)	1/25 (4%)	2/25 (8%)	0/25 (0%)	3/25 (12%)	1/25 (4%)	1/25 (4%)
POLY-3 RATE (b)	1/24.46	2/24.37	0/24.32	3/23.37	1/23.09	1/24.89
POLY-3 PERCENT (g)	4.1%	8.2%	0%	12.8%	4.3%	4%
TERMINAL (d)	1/23 (4%)	2/23 (9%)	0/23 (0%)	3/22 (14%)	1/22 (5%)	1/24 (4%)
FIRST INCIDENCE	275 (T)	275 (T)	---	275 (T)	275 (T)	275 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.516N	P=0.499	P=0.501N	P=0.286	P=0.748	P=0.757N
POLY 1.5	P=0.519N	P=0.499	P=0.501N	P=0.292	P=0.749	P=0.758N
POLY 6	P=0.511N	P=0.498	P=0.502N	P=0.279	P=0.749	P=0.755N
COCH-ARM / FISHERS	P=0.520N	P=0.500	P=0.500N	P=0.305	P=0.755N	P=0.755N
MAX-ISO-POLY-3	P=0.594	P=0.278	P=0.159N	P=0.143	P=0.484	P=0.495N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Spinal Cord Degeneration</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/1 (0%)	0/0 (0%)	2/2 (100%)	2/2 (100%)	0/1 (0%)	1/1 (100%)
POLY-3 RATE (b)	0/0.55	0/0.00	2/2.00	2/2.00	0/0.14	1/1.00
POLY-3 PERCENT (g)	0%	0%	100%	100%	0%	100%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE	---	---	232	209	---	264
<b>STATISTICAL TESTS</b>						
POLY 3	(e)	(e)	P=0.333	P=0.333	(e)	(e)
POLY 1.5	(e)	(e)	P=0.333	P=0.333	(e)	(e)
POLY 6	(e)	(e)	P=0.333	P=0.333	(e)	(e)
COCH-ARM / FISHERS	P=0.698	(e)	P=0.333	P=0.333	(e)	P=0.500
MAX-ISO-POLY-3	(e)	(e)	(e)	(e)	(e)	(e)

TDMS No. 20101 - 02  
Test Type: 26-39 WEEKS

Route: DOSED FEED  
Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
CAS Number: 8013-11-4

Date Report Requested: 03/11/2010

Time Report Requested: 11:54:36

First Dose M/F: 06/26/07 / 06/25/07

Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Spleen: Lymphoid Follicle Atrophy</b>						
<b>LESION RATES</b>						
OVERALL (a)	1/25 (4%)	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (b)	1/24.55	1/24.86	0/24.32	0/23.37	0/23.09	0/24.89
POLY-3 PERCENT (g)	4.1%	4%	0%	0%	0%	0%
TERMINAL (d)	0/23 (0%)	0/23 (0%)	0/23 (0%)	0/22 (0%)	0/22 (0%)	0/24 (0%)
FIRST INCIDENCE	267	221	---	---	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.403N	P=0.758N	P=0.502N	P=0.510N	P=0.512N	P=0.497N
POLY 1.5	P=0.405N	P=0.759N	P=0.501N	P=0.506N	P=0.511N	P=0.498N
POLY 6	P=0.399N	P=0.756N	P=0.504N	P=0.514N	P=0.512N	P=0.496N
COCH-ARM / FISHERS	P=0.405N	P=0.755N	P=0.500N	P=0.500N	P=0.500N	P=0.500N
MAX-ISO-POLY-3	P=0.204N	P=0.496N	P=0.160N	P=0.170N	P=0.173N	P=0.158N



TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Spleen: Lymphoid Follicle Hyperplasia</b>						
<b>LESION RATES</b>						
OVERALL (a)	0/25 (0%)	1/25 (4%)	0/25 (0%)	2/25 (8%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (b)	0/24.46	1/24.37	0/24.32	2/23.37	0/23.09	0/24.89
POLY-3 PERCENT (g)	0%	4.1%	0%	8.6%	0%	0%
TERMINAL (d)	0/23 (0%)	1/23 (4%)	0/23 (0%)	2/22 (9%)	0/22 (0%)	0/24 (0%)
FIRST INCIDENCE	---	275 (T)	---	275 (T)	---	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.399N	P=0.499	(e)	P=0.224	(e)	(e)
POLY 1.5	P=0.399N	P=0.500	(e)	P=0.229	(e)	(e)
POLY 6	P=0.398N	P=0.499	(e)	P=0.220	(e)	(e)
COCH-ARM / FISHERS	P=0.396N	P=0.500	(e)	P=0.245	(e)	(e)
MAX-ISO-POLY-3	P=0.408N	P=0.158	(e)	P=0.073	(e)	(e)

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Stomach, Glandular: Glands Cyst</b>						
<b>LESION RATES</b>						
OVERALL (a)	1/25 (4%)	4/25 (16%)	3/25 (12%)	2/25 (8%)	1/25 (4%)	0/25 (0%)
POLY-3 RATE (b)	1/24.46	4/24.37	3/24.32	2/23.37	1/23.09	0/24.89
POLY-3 PERCENT (g)	4.1%	16.4%	12.3%	8.6%	4.3%	0%
TERMINAL (d)	1/23 (4%)	4/23 (17%)	3/23 (13%)	2/22 (9%)	1/22 (5%)	0/24 (0%)
FIRST INCIDENCE	275 (T)	275 (T)	275 (T)	275 (T)	275 (T)	---
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.068N	P=0.171	P=0.300	P=0.484	P=0.748	P=0.497N
POLY 1.5	P=0.070N	P=0.172	P=0.301	P=0.490	P=0.749	P=0.498N
POLY 6	P=0.066N	P=0.170	P=0.298	P=0.477	P=0.749	P=0.495N
COCH-ARM / FISHERS	P=0.071N	P=0.174	P=0.305	P=0.500	P=0.755N	P=0.500N
MAX-ISO-POLY-3	P=0.125N	P=0.077	P=0.148	P=0.270	P=0.484	P=0.158N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Thymus Atrophy</b>						
<b>LESION RATES</b>						
OVERALL (a)	3/24 (13%)	1/22 (5%)	1/22 (5%)	1/22 (5%)	1/22 (5%)	2/24 (8%)
POLY-3 RATE (b)	3/23.55	1/21.86	1/21.32	1/21.44	1/20.95	2/23.89
POLY-3 PERCENT (g)	12.7%	4.6%	4.7%	4.7%	4.8%	8.4%
TERMINAL (d)	2/22 (9%)	0/20 (0%)	1/20 (5%)	0/20 (0%)	0/19 (0%)	2/23 (9%)
FIRST INCIDENCE	267	221	275 (T)	221	141	275 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.558	P=0.330N	P=0.339N	P=0.337N	P=0.346N	P=0.493N
POLY 1.5	P=0.555	P=0.332N	P=0.337N	P=0.336N	P=0.346N	P=0.496N
POLY 6	P=0.561	P=0.328N	P=0.343N	P=0.337N	P=0.343N	P=0.491N
COCH-ARM / FISHERS	P=0.553	P=0.338N	P=0.338N	P=0.338N	P=0.338N	P=0.500N
MAX-ISO-POLY-3	P=0.303N	P=0.172N	P=0.181N	P=0.179N	P=0.187N	P=0.316N

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Thymus: Medulla Hyperplasia Lymphoid</b>						
<b>LESION RATES</b>						
OVERALL (a)	4/24 (17%)	3/22 (14%)	3/22 (14%)	6/22 (27%)	5/22 (23%)	4/24 (17%)
POLY-3 RATE (b)	4/23.92	3/21.37	3/21.32	6/20.96	5/20.09	4/23.89
POLY-3 PERCENT (g)	16.7%	14%	14.1%	28.6%	24.9%	16.8%
TERMINAL (d)	3/22 (14%)	3/20 (15%)	3/20 (15%)	6/20 (30%)	5/19 (26%)	4/23 (17%)
FIRST INCIDENCE	225	275 (T)	275 (T)	275 (T)	275 (T)	275 (T)
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.578N	P=0.563N	P=0.564N	P=0.278	P=0.387	P=0.647
POLY 1.5	P=0.584N	P=0.557N	P=0.557N	P=0.289	P=0.398	P=0.647
POLY 6	P=0.569N	P=0.571N	P=0.574N	P=0.265	P=0.383	P=0.647
COCH-ARM / FISHERS	P=0.578	P=0.551N	P=0.551N	P=0.304	P=0.441	P=0.650N
MAX-ISO-POLY-3	P=0.439	P=0.406N	P=0.408N	P=0.182	P=0.268	P=0.499

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS

Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010

Time Report Requested: 11:54:36

First Dose M/F: 06/26/07 / 06/25/07

Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Urinary Bladder</b>						
<b>Infiltration Cellular Lymphocyte</b>						
<b>LESION RATES</b>						
<b>OVERALL (a)</b>	0/25 (0%)	1/25 (4%)	3/25 (12%)	2/25 (8%)	0/25 (0%)	0/25 (0%)
<b>POLY-3 RATE (b)</b>	0/24.46	1/24.37	3/24.32	2/23.37	0/23.09	0/24.89
<b>POLY-3 PERCENT (g)</b>	0%	4.1%	12.3%	8.6%	0%	0%
<b>TERMINAL (d)</b>	0/23 (0%)	1/23 (4%)	3/23 (13%)	2/22 (9%)	0/22 (0%)	0/24 (0%)
<b>FIRST INCIDENCE</b>	---	275 (T)	275 (T)	275 (T)	---	---
<b>STATISTICAL TESTS</b>						
<b>POLY 3</b>	P=0.174N	P=0.499	P=0.112	P=0.224	(e)	(e)
<b>POLY 1.5</b>	P=0.175N	P=0.500	P=0.113	P=0.229	(e)	(e)
<b>POLY 6</b>	P=0.172N	P=0.499	P=0.111	P=0.220	(e)	(e)
<b>COCH-ARM / FISHERS</b>	P=0.177N	P=0.500	P=0.117	P=0.245	(e)	(e)
<b>MAX-ISO-POLY-3</b>	P=0.248N	P=0.158	P=0.035*	P=0.073	(e)	(e)

TDMS No. 20101 - 02  
 Test Type: 26-39 WEEKS  
 Route: DOSED FEED  
 Species/Strain: MICE/P53(C57BL/6)

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Senna (powdered)  
 CAS Number: 8013-11-4

Date Report Requested: 03/11/2010  
 Time Report Requested: 11:54:36  
 First Dose M/F: 06/26/07 / 06/25/07  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MICE(P53(C57BL/6))  
 TERMINAL SACRIFICE AT 40 WEEKS**

DOSE	Females					
	0 ppm	100 ppm	300 ppm	1000 ppm	3000 ppm	10,000 ppm
<b>Uterus: Endometrium Hyperplasia Cystic</b>						
<b>LESION RATES</b>						
OVERALL (a)	15/25 (60%)	7/25 (28%)	3/25 (12%)	5/25 (20%)	6/25 (24%)	14/25 (56%)
POLY-3 RATE (b)	15/25.00	7/24.86	3/24.72	5/23.93	6/23.15	14/25.00
POLY-3 PERCENT (g)	60%	28.2%	12.1%	20.9%	25.9%	56%
TERMINAL (d)	13/23 (57%)	6/23 (26%)	2/23 (9%)	4/22 (18%)	5/22 (23%)	13/24 (54%)
FIRST INCIDENCE	225	221	232	209	269	264
<b>STATISTICAL TESTS</b>						
POLY 3	P=0.018*	P=0.020N*	P<0.001N**	P=0.004N**	P=0.015N*	P=0.500N
POLY 1.5	P=0.017*	P=0.020N*	P<0.001N**	P=0.003N**	P=0.013N*	P=0.500N
POLY 6	P=0.019*	P=0.021N*	P<0.001N**	P=0.005N**	P=0.016N*	P=0.500N
COCH-ARM / FISHERS	P=0.022*	P=0.023N*	P<0.001N**	P=0.004N**	P=0.010N**	P=0.500N
MAX-ISO-POLY-3	P=0.011N*	P=0.010N**	P<0.001N**	P=0.002N**	P=0.008N**	P=0.389N

TDMS No. 20101 - 02  
Test Type: 26-39 WEEKS  
Route: DOSED FEED  
Species/Strain: MICE/P53(C57BL/6)

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

Senna (powdered)  
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**LEGEND**

- (a) Number of tumor-bearing animals/number of animals examined at site.
  - (b) Number of tumor-bearing animals/Poly-3 number
  - (d) Observed incidence at terminal kill.
  - (e) Value of Statistic cannot be computed.
  - (f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group.
  - (g) Poly-3 adjusted lifetime tumor incidence.
  - (I) Interim sacrifice
  - (T) Terminal sacrifice
  - # Tumor rates based on numbers of animals necropsied.
  - \* To the right of any statistical result, indicates significance at ( $P \leq 0.05$ ).
  - \*\* To the right of any statistical result, indicates significance at ( $P \leq 0.01$ ).
  - N Indicates a negative trend for all tests
- The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates.

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