Experiment Number: 20101-01 Test Type: 18-33 DAYS Route: DOSED FEED Species/Strain: Mouse/P53(C57BL/6)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Test Compound: Senna (powdered)
CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

C Number:	C20101
Lock Date:	01/25/2006
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	NONE

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse 0 ppm	DAY ON TEST Male ANIMAL ID	0 0 2 9 0 0 0 0 0 1	0 0 2 9 0 0 0 0 0 2	0 0 2 9 0 0 0 0 3	0 0 2 9 0 0 0 0 4	0 0 2 9 0 0 0 0 5	*TOTALS
Alimentary System							
Intestine Large, Cecum		+	+	+	+	+	5
Intestine Large, Colon		+	+	+	+	+	5
Intestine Large, Rectum		+	+	+	+	+	5
Intestine Small, Duodenum		+	+	+	+	+	5
Intestine Small, Ileum		+	+	+	+	+	5
Intestine Small, Jejunum		+	+	+	+	+	5
Liver		+	+	+	+	+	5
Stomach, Forestomach		+	+	+	+	+	5
Stomach, Glandular		+	+	+	+	+	5
Cardiovascular System							
NONE							
Endocrine System							
Adrenal Cortex		+	+	+	+	+	5
Adrenal Medulla		+	+	+	+	+	5

Pituitary Gland Thyroid Gland

General Body System

NONE Genital System

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

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

5

5

+ +

+ + +

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

	DAY ON TEST	0	0	0	0	0	
P53(C57BL/6) Mouse M	lale	0 2	0 2	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{array}{c} 0\\ 2\end{array}$	
0 ppm		9	9	9	9	9	
	ANIMAL ID	0 0	0 0	0	0	0 0	
		0	0	0	0	0	
		0 1	0 2	0 3	0 4	0 5	*TOTALS
Epididymis		+	+	+	+	+	5
Testes		+	+	+	+	+	5
Hematopoietic System							
Lymph Node		+	+	+	+	+	5
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE							
Musculoskeletal System							
NONE							
Nervous System							
NONE							
Respiratory System							
Lung Special Senses System		+	+	+	+	+	5
NONE							
Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

M .. Missing tissue

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse M 0 ppm	DAY ON TEST I ale	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
o ppin	ANIMAL ID	0 0 0 0	0 0 0 2	0 0 0 3	0 0 0 4	0 0 0 5	*TOTALS
Kidney		+	+	+	+	+	5
Urinary Bladder SYSTEMIC LESIONS		+	+	+	+	+	5
Multiple Organ		+	+	+	+	+	5

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P04: NEOPLASMS BY INDIVIDUAL ANIMA	L
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Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

DAY C	N TEST	0	0	0	0	0	
P53(C57BL/6) Mouse Male		0 2	0 2	0 2	0 2	0 2	
625 ppm	F	9 0	9 0	9 0	9 0	9 0	
AN	IMAL ID	0	0	0	0	0	
		0	0 0	0 0	0 0	0 1	
		6	7	8	9	Ò	*TOTALS
Alimentary System							
Intestine Large, Cecum		+	+	+	+	+	5
Intestine Large, Colon		+	+	+	+	+	5
Intestine Large, Rectum		+	+	+	+	+	5
Intestine Small, Duodenum		+	+	+	+	+	5
Intestine Small, Ileum		+	+	+	+	+	5
Intestine Small, Jejunum		+	+	+	+	+	5
Liver		+	+	+	+	+	5
Stomach, Forestomach		+	+	+	+	+	5
Stomach, Glandular		+	+	+	+	+	5
Cardiovascular System							
NONE							
Endocrine System							
Adrenal Cortex		+	+	+	+	+	5
Adrenal Medulla		+	+	+	+	+	5
Pituitary Gland		+	+	+	+	+	5
Thyroid Gland		+	+	+	+	+	5

General Body System

NONE **Genital System**

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

	DAY ON TEST	-	0	0	0	0	
P53(C57BL/6) Mouse N	lale	$\begin{array}{c} 0\\ 2\end{array}$	$\begin{array}{c} 0\\ 2\end{array}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	0 2	$\begin{array}{c} 0\\ 2\end{array}$	
625 ppm		9	9	9	9	9	
	ANIMAL ID	0 0	0 0	0	0 0	0 0	
		0	0	0	0 0	0	
		6	7	8	9	Ö	*TOTALS
Epididymis		+	+	+	+	+	5
Testes		+	+	+	+	+	5
Hematopoietic System							
Lymph Node		М	+	+	+	+	4
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE							
Musculoskeletal System							
NONE							
Nervous System							
NONE							
Respiratory System							
Lung		+	+	+	+	+	5
Special Senses System							
NONE							
Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse M 625 ppm	DAY ON TEST I ale	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
626 pp	ANIMAL ID	0 0 0 0 6	0 0 0 7	0 0 0 8	0 0 0 9	0 0 1 0	*TOTALS
Kidney		+	+	+	+	+	5
Urinary Bladder SYSTEMIC LESIONS		+	+	+	+	+	5
Multiple Organ		+	+	+	+	+	5

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

Test Co	mpound: Senna (powdered)
CA	S Number: 8013-11-4

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

	DAY ON TEST	0	0	0	0	0	
P53(C57BL/6) Mouse I	Male	0 2	0 2	$\begin{array}{c} 0\\ 2\end{array}$	0 2	$\begin{array}{c} 0\\ 2\end{array}$	
1250 ppm		<u>9</u>	<i>9</i>	<i>9</i>	<i>9</i>	<i>9</i>	
	ANIMAL ID	0 0	0 0	0	0 0	0 0	
		0	0	Ō	0	0	
		1 1	1 2	1	1 4	1 5	*TOTALS
Alimentary System							
Intestine Large, Cecum		+	+	+	+	+	5
Intestine Large, Colon		+	+	+	+	+	5
Intestine Large, Rectum		+	+	+	+	+	5
Intestine Small, Duodenum		+	+	+	+	+	5
Intestine Small, Ileum		+	+	+	+	+	5
Intestine Small, Jejunum		+	+	+	+	+	5
Liver		+	+	+	+	+	5
Stomach, Forestomach		+	+	+	+	+	5
Stomach, Glandular		+	+	+	+	+	5
Cardiovascular System							
NONE							
Endocrine System							
Adrenal Cortex		+	+	+	+	+	5
Adrenal Medulla		+	+	+	+	+	5
Pituitary Gland		+	+	+	+	+	5
Thyroid Gland		+	+	+	+	+	5

General Body System

NONE Genital System

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

	DAY ON TEST	0	0	0	0	0	
P53(C57BL/6) Mouse	Male	0 2	$\begin{array}{c} 0\\ 2\end{array}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	
1250 ppm		9	9	9	9	9	
••	ANIMAL ID	0 0	0	0	0	0	
		0	0	0	0	0	
		1 1	1	1	1	1 5	*TOTALS
Epididymis		+	+	+	+	+	5
Testes		+	+	+	+	+	5
Hematopoietic System							
Lymph Node		+	+	+	+	+	5
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE							
Musculoskeletal System							
NONE							
Nervous System							
NONE							
Respiratory System							
Lung		+	+	+	+	+	5
Special Senses System							
NONE							
Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

M .. Missing tissue

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

D. P53(C57BL/6) Mouse Ma 1250 ppm	AY ON TEST Ie	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
PP	ANIMAL ID	0 0 1 1	0 0 1 2	0 0 0 1 3	0 0 0 1 4	0 0 0 1 5	*TOTALS
Kidney		+	+	+	+	+	5
Urinary Bladder SYSTEMIC LESIONS		+	+	+	+	+	5
Multiple Organ		+	+	+	+	+	5

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse 2500 ppm	DAY ON TEST Male ANIMAL ID	0 0 2 9 0 0 0 0 1 6	0 0 2 9 0 0 0 0 1 7	0 0 2 9 0 0 0 0 1 8	0 0 2 9 0 0 0 0 1 9	0 0 2 9 0 0 0 2 0	*TOTALS
Alimentary System							
Intestine Large, Cecum		+	+	+	+	+	5
Intestine Large, Colon		+	+	+	+	+	5
Intestine Large, Rectum		+	+	+	+	+	5
Intestine Small, Duodenum		+	+	+	+	+	5
Intestine Small, Ileum		+	+	+	+	+	5
Intestine Small, Jejunum		+	+	+	+	+	5
Liver		+	+	+	+	+	5
Stomach, Forestomach		+	+	+	+	+	5
Stomach, Glandular		+	+	+	+	+	5
Cardiovascular System							
NONE Endocrine System							
Adrenal Cortex		+	+	+	+	+	5
Adrenal Medulla		+	+	+	+	+	5
Pituitary Gland		+	+	+	+	+	5
Thyroid Gland		+	+	+	+	+	5
-							

General Body System

NONE **Genital System**

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse N 2500 ppm	DAY ON TEST Iale ANIMAL ID	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0 1	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0 2	
		6	7	8	9	Ō	*TOTALS
Epididymis		+	+	+	+	+	5
Testes		+	+	+	+	+	5
Hematopoietic System							
Lymph Node		+	+	+	+	+	5
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE Musculoskeletal System							
NONE							
Nervous System							
NONE Respiratory System							
Lung Special Senses System		+	+	+	+	+	5
NONE Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

D/ P53(C57BL/6) Mouse Ma 2500 ppm	AY ON TEST le	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
	ANIMAL ID	0 0 0 1 6	0 0 1 7	0 0 1 8	0 0 1 9	0 0 2 0	*TOTALS
Kidney		+	+	+	+	+	5
Urinary Bladder SYSTEMIC LESIONS		+	+	+	+	+	5
Multiple Organ		+	+	+	+	+	5

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P04: NEOPLASMS BY INDIVIDUA	L ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse 5000 ppm	DAY ON TEST Male ANIMAL ID	0 0 2 9 0 0 0 0 2 1	0 0 2 9 0 0 0 0 2 2	0 0 2 9 0 0 0 0 2 3	0 0 2 9 0 0 0 0 2 4	0 0 2 9 0 0 0 0 2 5	*TOTALS
Alimentary System							
Intestine Large, Cecum Intestine Large, Colon Intestine Large, Rectum Intestine Small, Duodenum Intestine Small, Ileum Intestine Small, Jejunum Liver Stomach, Forestomach Stomach, Glandular Cardiovascular System		+ + + + + + + + + + +	+ + + + + + + + + + +	+ + + + + + + + + + +	+ + + + + + + + + + +	+ + + + + + + +	5 5 5 5 5 5 5 5 5 5
NONE Endocrine System							
Adrenal Cortex Adrenal Medulla Pituitary Gland Thyroid Gland		+ + +	+ + +	+ + +	+ + +	+ + +	5 5 5 5

General Body System

NONE Genital System

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

	DAY ON TEST		0	0	0	0	
P53(C57BL/6) Mouse N	lale	0 2	$\begin{vmatrix} 0\\2 \end{vmatrix}$	0 2	0 2	0 2	
5000 ppm		9 0	9 0	9 0	9 0	9 0	
	ANIMAL ID	0	0	0	0	0	
		0 2	0 2	0 2	0 2	0 2	*TOTALO
		1	2	3	4	5	*TOTALS
Epididymis		+	+	+	+	+	5
Testes		+	+	+	+	+	5
Hematopoietic System							
Lymph Node		+	М	+	+	+	4
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE							
Musculoskeletal System							
NONE							
Nervous System							
NONE							
Respiratory System							
Lung Special Senses System		+	+	+	+	+	5
NONE Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse N 5000 ppm	DAY ON TEST Iale	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
pp	ANIMAL ID	0 0 2 1	0 0 2 2	0 0 2 3	0 0 2 4	0 0 2 5	*TOTALS
Kidney		+	+	+	+	+	5
Urinary Bladder SYSTEMIC LESIONS		+	+	+	+	+	5
Multiple Organ		+	+	+	+	+	5

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse 10,000 ppm	DAY ON TEST Male ANIMAL ID	0 0 2 9 0 0 0 0 2 6	0 0 2 9 0 0 0 0 2 7	0 0 2 9 0 0 0 0 2 8	0 0 2 9 0 0 0 2 9	0 0 2 9 0 0 0 0 3 0	*TOTALS
Alimentary System							
Intestine Large, Cecum		+	+	+	+	+	5
Intestine Large, Colon		+	+	+	+	+	5
Intestine Large, Rectum		+	+	+	+	+	5
Intestine Small, Duodenum		+	+	+	+	+	5
Intestine Small, Ileum		+	+	+	+	+	5
Intestine Small, Jejunum		+	+	+	+	+	5
Liver		+	+	+	+	+	5
Stomach, Forestomach		+	+	+	+	+	5
Stomach, Glandular		+	+	+	+	+	5
Cardiovascular System							
NONE Endocrine System							
Adrenal Cortex		+	+	+	+	+	5
Adrenal Medulla		+	+	+	+	+	5
Pituitary Gland		+	+	+	+	+	5
Thyroid Gland		+	+	+	+	+	5

General Body System

NONE Genital System

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

ت P53(C57BL/6) Mouse M 10,000 ppm	DAY ON TEST ale ANIMAL ID	0 0 2 9 0 0 0 2 6	0 0 2 9 0 0 0 0 2 7	0 0 2 9 0 0 0 0 2 8	0 0 2 9 0 0 0 0 2 9	0 0 2 9 0 0 0 0 3 0	*TOTALS
Epididymis		+	+	+	+	+	5
Testes		+	+	+	+	+	5
Hematopoietic System							-
Lymph Node		+	+	+	+	+	5
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE Musculoskeletal System							
NONE Nervous System							
NONE Respiratory System							
Lung Special Senses System		+	+	+	+	+	5
NONE Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:19 First Dose M/F: NA / NA Lab: BAT

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

DAY ON TEST	0	0	0	0	0	
DE2/CEZDL/C) Mauraa Mala	0	0	0	0	0	
P53(C57BL/6) Mouse Male	2	2	2	2	2	
10,000 ppm	9	9	9	9	9	
ANIMAL ID	0	0	0	0	0	
	0	0	0	0	0	
	0	0	0	0	0	
	2	2	2	2	3	****
	6	7	8	9	0	*TOTALS
Kidney	+	+	+	+	+	5
Urinary Bladder	+	+	+	+	+	5
SYSTEMIC LESIONS						
Multiple Organ	+	+	+	+	+	5
						END OF MALE DATA

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

						Test Compound: Senna (powdered)
						CAS Number: 8013-11-4
ON TEST	0	0	0	0	0	

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse 0 ppm	DAY ON TEST Female ANIMAL ID	0 0 2 9 0 0 0 3 1	0 0 2 9 0 0 0 3 2	0 0 2 9 0 0 0 3 3 3	0 0 2 9 0 0 0 3 4	0 0 2 9 0 0 0 3 5	*TOTALS
Alimentary System							
Intestine Large, Cecum		+	+	+	+	+	5
Intestine Large, Colon		+	+	+	+	+	5
Intestine Large, Rectum		+	+	+	+	+	5
Intestine Small, Duodenum		+	+	+	+	+	5
Intestine Small, Ileum		+	+	+	+	+	5
Intestine Small, Jejunum		+	+	+	+	+	5
Liver		+	+	+	+	+	5
Stomach, Forestomach		+	+	+	+	+	5
Stomach, Glandular		+	+	+	+	+	5
Cardiovascular System							
NONE Endocrine System							
Adrenal Cortex		+	+	+	+	+	5
Adrenal Medulla		+	+	+	+	+	5
Pituitary Gland		+	+	+	+	+	5
Thyroid Gland		+	+	+	+	+	5

General Body System

NONE **Genital System**

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

DAY ON TE P53(C57BL/6) Mouse Female	0 2	$\begin{array}{c} 0\\ 0\\ 2\\ 0 \end{array}$	$\begin{array}{c} 0\\ 0\\ 2\\ 0 \end{array}$	$\begin{array}{c} 0\\ 0\\ 2\\ 0 \end{array}$	0 0 2	
0 ppm ANIMAL	9 . ID 0 0 3 1	9 0 0 0 3 2	9 0 0 3 3	9 0 0 3 4	9 0 0 3 5	*TOTALS
Ovary Uterus Hematopoietic System	++	++	++	++	+++	5 5
Lymph Node Lymph Node, Mandibular Lymph Node, Mesenteric Spleen Thymus	+ + + +	+ + + +	+ + + +	+ + + +	+ + + +	5 5 5 5 5
Integumentary System NONE Musculoskeletal System NONE						
NONE Respiratory System						
Lung Special Senses System NONE Urinary System	+	+	+	+	+	5

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse 0 ppm	DAY ON TEST Female	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
6 bb	ANIMAL ID	0 0 0 3 1	0 0 0 3 2	0 0 3 3	0 0 0 3 4	0 0 3 5	*TOTALS
Kidney		+	+	+	+	+	5
Urinary Bladder SYSTEMIC LESIONS		+	+	+	+	+	5
Multiple Organ		+	+	+	+	+	5

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

DAY ON TEST 0 0 0 0 0 0 0 0 0 0 P53(C57BL/6) Mouse Female 2 9 2 9 2 9 2 9 2 9 625 ppm 0 0 0 0 0 0 0 0 3 7 ANIMAL ID Õ 0 0 0 0 0 0 3 6 3 8 3 9 4 0 ***TOTALS Alimentary System** Intestine Large, Cecum 5 5 Intestine Large, Colon 5 Intestine Large, Rectum Intestine Small, Duodenum 5 Intestine Small, Ileum 5 5 Intestine Small, Jejunum + + 5 Liver 5 Stomach, Forestomach + Stomach, Glandular 5 + **Cardiovascular System** NONE **Endocrine System** Adrenal Cortex 5 5 Adrenal Medulla 5 **Pituitary Gland** +

General Body System

Thyroid Gland

NONE Genital System

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

5

+ +

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse F	DAY ON TEST	0	0 0	0 0	0 0	0 0	
625 ppm	ANIMAL ID	2 9 0 0 0 3	2 9 0 0 0 3	2 9 0 0 0 3	2 9 0 0 0 3	2 9 0 0 0 4	
		6	7	8	9	0	*TOTALS
Ovary		+	+	+	+	+	5
Uterus		+	+	+	+	+	5
Hematopoietic System							
Lymph Node		+	+	+	+	+	5
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE Musculoskeletal System							
NONE Nervous System							
NONE Respiratory System							
Lung Special Senses System		+	+	+	+	+	5
NONE Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse 625 ppm	DAY ON TEST Female	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
020 ppm	ANIMAL ID	0 0 0 3 6	0 0 0 3 7	0 0 3 8	0 0 3 9	0 0 0 4 0	*TOTALS
Kidney		+	+	+	+	+	5
Urinary Bladder SYSTEMIC LESIONS		+	+	+	+	+	5
Multiple Organ		+	+	+	+	+	5

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

D P53(C57BL/6) Mouse Fe	AY ON TEST male	0 0	0 0	0 0	00	0 0	
1250 ppm		2 9	2 9	2 9	2 9	2 9	
	ANIMAL ID	0 0 0 4 1	0 0 0 4 2	0 0 0 4 3	0 0 0 4 4	0 0 0 4 5	*TOTALS
Alimentary System							
Intestine Large, Cecum		+	+	+	+	+	5
Intestine Large, Colon		+	+	+	+	+	5
Intestine Large, Rectum		+	+	+	+	+	5
Intestine Small, Duodenum		+	+	+	+	+	5
Intestine Small, Ileum		+	+	+	+	+	5
Intestine Small, Jejunum		+	+	+	+	+	5
Liver		+	+	+	+	+	5
Stomach, Forestomach		+	+	+	+	+	5
Stomach, Glandular		+	+	+	+	+	5
Cardiovascular System							

NONE

Endocrine System

Adrenal Cortex	+	+	+	+	+	5
Adrenal Medulla	+	+	+	+	+	5
Pituitary Gland	+	+	Μ	+	+	4
Thyroid Gland	+	+	+	+	+	5

General Body System

NONE Genital System

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse I 1250 ppm	DAY ON TEST Female ANIMAL ID	0 0 2 9 0 0 0 4	0 0 2 9 0 0 0 4	0 0 2 9 0 0 0 4	0 0 2 9 0 0 0 4	0 0 2 9 0 0 0 4	*TOTAL S
		1+	2+	3	4 +	5 +	*TOTALS 5
Ovary Uterus		+	+	+	+	+	5
Hematopoietic System		т	т	т	т	т	5
nematopoletic bystem							
Lymph Node		+	+	+	М	+	4
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE Musculoskeletal System							
NONE							
Nervous System							
NONE Respiratory System							
Lung Special Senses System		+	+	+	+	+	5
NONE Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse F 1250 ppm	DAY ON TEST emale	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
pp	ANIMAL ID	0 0 0 4 1	0 0 4 2	0 0 4 3	0 0 0 4 4	0 0 0 4 5	*TOTALS
Kidney		+	+	+	+	+	5
Urinary Bladder SYSTEMIC LESIONS		+	+	+	+	+	5
Multiple Organ		+	+	+	+	+	5

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

DAY	ON TEST	0	0	0	0	0	
P53(C57BL/6) Mouse Fema	ale	0	0	0	0	0	
	are	2 9	2 9	2 9	2 9	2 9	
2500 ppm		0	9	0	0	9	
/	ANIMAL ID	ŏ	ŏ	ŏ	ŏ	ŏ	
		0	0	0	0	0	
		4 6	4 7	4 8	4	5 0	*TOTALS
Alimentary System		-					
Intestine Large, Cecum		+	+	+	+	+	5
Intestine Large, Colon		+	+	+	+	+	5
Intestine Large, Rectum		+	+	+	+	+	5
Intestine Small, Duodenum		+	+	+	+	+	5
Intestine Small, Ileum		+	+	+	+	+	5
Intestine Small, Jejunum		+	+	+	+	+	5
Liver		+	+	+	+	+	5
Stomach, Forestomach		+	+	+	+	+	5
Stomach, Glandular		+	+	+	+	+	5
Cardiovascular System							

NONE

Endocrine System

Adrenal Cortex	+	+	+	+	+	5
Adrenal Medulla	+	+	+	+	+	5
Pituitary Gland	+	+	+	+	+	5
Thyroid Gland	+	+	+	+	+	5

General Body System

NONE Genital System

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

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M .. Missing tissue

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse 2500 ppm	DAY ON TEST Female ANIMAL ID	0 0 2 9 0 0 0 4 6	0 0 2 9 0 0 0 0 4 7	0 0 2 9 0 0 0 4 8	0 0 2 9 0 0 0 0 4 9	0 0 2 9 0 0 0 5 0	*TOTALS
Ovary		+	+	+	+	+	5
Uterus		+	+	+	+	+	5
Hematopoietic System							
Lymph Node		+	+	+	+	+	5
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE Musculoskeletal System							
NONE Nervous System							
NONE Respiratory System							
Lung Special Senses System		+	+	+	+	+	5
NONE Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse F 2500 ppm	DAY ON TEST emale	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
pp	ANIMAL ID	0 0 4 6	0 0 4 7	0 0 4 8	0 0 4 9	0 0 0 5 0	*TOTALS
Kidney		+	+	+	+	+	5
Urinary Bladder SYSTEMIC LESIONS		+	+	+	+	+	5
Multiple Organ		+	+	+	+	+	5

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

DAY ON TEST 0 0 0 0 0 0 0 0 0 0 P53(C57BL/6) Mouse Female 2 9 2 9 2 9 2 9 2 9 5000 ppm 0 0 0 0 0 0 0 0 5 2 ANIMAL ID Õ 0 0 0 5 5 0 5 1 0 0 5 3 5 ***TOTALS** 4 **Alimentary System** Intestine Large, Cecum 5 5 Intestine Large, Colon 5 Intestine Large, Rectum Intestine Small, Duodenum 5 Intestine Small, Ileum 5 5 Intestine Small, Jejunum + + 5 Liver + 5 Stomach, Forestomach + Stomach, Glandular 5 + **Cardiovascular System** NONE **Endocrine System** Adrenal Cortex 5 5 Adrenal Medulla

Adversal Meddila
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General Body System

NONE Genital System

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

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

5

5

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse 5000 ppm	DAY ON TEST Female ANIMAL ID	0 0 2 9 0 0 0 5 1	0 0 2 9 0 0 0 5 2	<i>0</i> <i>0</i> <i>2</i> <i>9</i> 0 0 0 5 3	0 0 2 9 0 0 0 5 4	0 0 2 9 0 0 0 5 5	*TOTALS
Ovary		+	+	+	+	+	5
Uterus		+	+	+	+	+	5
Hematopoietic System							
Lymph Node		+	+	+	+	+	5
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE Musculoskeletal System							
NONE Nervous System							
NONE Respiratory System							
Lung Special Senses System		+	+	+	+	+	5
NONE Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse I 5000 ppm	DAY ON TEST Female	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
	ANIMAL ID	0 0 0 5 1	0 0 5 2	0 0 5 3	0 0 5 4	0 0 0 5 5	*TOTALS
Kidney		+	+	+	+	+	5
Urinary Bladder SYSTEMIC LESIONS		+	+	+	+	+	5
Multiple Organ		+	+	+	+	+	5

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P04: NEOPLASMS BY INDIVIDUAL	ΔΝΙΜΔΙ
PU4: NEUPLASING DI INDIVIDUAL	ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

Alimentary System +	P53(C57BL/6) Mouse 10,000 ppm	DAY ON TEST Female ANIMAL ID	0 0 2 9 0 0 0 5 6	0 0 2 9 0 0 0 5 7	0 0 2 9 0 0 0 5 8	0 0 2 9 0 0 0 5 9	0 0 2 9 0 0 0 0 6 0	*TOTALS
Intestine Large, Colon + + + + + + + + + + + 5 Intestine Large, Rectum + + + + + + 5 Intestine Small, Duodenum + + + + + + 5 Intestine Small, Ileum + + + + + 5 Intestine Small, Jejunum + + + + + 5 Liver + + + + + 5 Stomach, Forestomach + + + + 5 Stomach, Glandular + + + + 5 Cardiovascular System - - + + + 5 NONE - - + + + + 5 Adrenal Cortex + + + + 5 5 Adrenal Medulla + + + + + 5 5 Pituitary Gland	Alimentary System							
Intestine Large, Colon + + + + + + + + + + + 5 Intestine Large, Rectum + + + + + + 5 Intestine Small, Duodenum + + + + + + 5 Intestine Small, Ileum + + + + + 5 Intestine Small, Jejunum + + + + + 5 Liver + + + + + 5 Stomach, Forestomach + + + + 5 Stomach, Glandular + + + + 5 Cardiovascular System - - + + + 5 NONE - - + + + + 5 Adrenal Cortex + + + + 5 5 Adrenal Medulla + + + + + 5 5 Pituitary Gland	Intestine Large, Cecum		+	+	+	+	+	5
Intestine Small, Duodenum + 5 5 5 1<	•		+	+	+	+	+	5
Intestine Small, lleum++++5Intestine Small, Jejunum+++++5Liver+++++5Stomach, Forestomach+++++5Stomach, Glandular+++++5Cardiovascular SystemNONEEndocrine System++++5Adrenal Cortex++++5Adrenal Medulla++++5Pituitary Gland++++5	Intestine Large, Rectum		+	+	+	+	+	5
Intestine Small, Jejunum+++++5Liver+++++5Stomach, Forestomach+++++5Stomach, Glandular+++++5Cardiovascular SystemNONEEndocrine System++++5Adrenal Cortex++++5Adrenal Medulla++++5Pituitary Gland++++5	Intestine Small, Duodenum		+	+	+	+	+	5
Liver++++5Stomach, Forestomach+++++5Stomach, Glandular+++++5Cardiovascular SystemNONEEndocrine System+++++Adrenal Cortex++++5Adrenal Medulla++++5Pituitary Gland++++5	Intestine Small, Ileum		+	+	+	+	+	5
Stomach, Forestomach+++++5Stomach, Glandular++++++5Cardiovascular SystemNONENONE5Endocrine System+++++5Adrenal Cortex+++++5Adrenal Medulla++++5Pituitary Gland++++5	Intestine Small, Jejunum		+	+	+	+	+	5
Stomach, Glandular++++5Cardiovascular SystemNONE5Endocrine System++++5Adrenal Cortex+++++5Adrenal Medulla++++5Pituitary Gland++++5	Liver		+	+	+	+	+	5
Cardiovascular SystemNONEEndocrine SystemAdrenal Cortex++++5Adrenal Medulla++++5Pituitary Gland++++5	Stomach, Forestomach		+	+	+	+	+	5
NONEEndocrine SystemAdrenal Cortex++++5Adrenal Medulla++++5Pituitary Gland++++5	Stomach, Glandular		+	+	+	+	+	5
Endocrine SystemAdrenal Cortex+++	Cardiovascular System							
Adrenal Medulla+++5Pituitary Gland++++5								
Pituitary Gland + + + + + 5	Adrenal Cortex		+	+	+	+	+	5
	Adrenal Medulla		+	+	+	+	+	5
-	Pituitary Gland		+	+	+	+	+	5
	Thyroid Gland		+	+	+	+	+	5

General Body System

NONE **Genital System**

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

P53(C57BL/6) Mouse 10,000 ppm	DAY ON TEST Female ANIMAL ID	0 0 2 9 0 0 0 5 6	0 0 2 9 0 0 0 0 5 7	0 0 2 9 0 0 0 5 8	0 0 2 9 0 0 0 0 5 9	0 0 2 9 0 0 0 0 6 0	*TOTALS
Ovary		+	+	+	+	+	5
Uterus		+	+	+	+	+	5
Hematopoietic System							
Lymph Node		+	+	+	М	+	4
Lymph Node, Mandibular		+	+	+	+	+	5
Lymph Node, Mesenteric		+	+	+	+	+	5
Spleen		+	+	+	+	+	5
Thymus		+	+	+	+	+	5
Integumentary System							
NONE Musculoskeletal System							
NONE Nervous System							
NONE Respiratory System							
Lung Special Senses System		+	+	+	+	+	5
NONE Urinary System							

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Test Type: 18-33 DAYS

Route: DOSED FEED

Species/Strain: Mouse/P53(C57BL/6)

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

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014 Time Report Requested: 22:37:20 First Dose M/F: NA / NA Lab: BAT

DAY ON TES P53(C57BL/6) Mouse Female 10,000 ppm	Г 0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
ANIMAL II	0 0 0 5 6	0 0 0 5 7	0 0 0 5 8	00059	0 0 0 6 0	*TOTALS_
Kidney	+	+	+	+	+	5
Urinary Bladder	+	+	+	+	+	5
SYSTEMIC LESIONS						
Multiple Organ	+	+	+	+	+	5 ** END OF REPORT **

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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