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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered) CAS Number: 8013-11-4 Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 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)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANI	MAL
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Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

DAY ON P53(C57BL/6) Mouse Male 0 ppm ANIM	_	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0 0 0	***		
Alimentary System		1	2	3	4	5	TC	DTA	<u>LS</u>
							_		
Intestine Large, Cecum		+	+	+	+	+	5 5		
Intestine Large, Colon Intestine Large, Rectum		+ +	+ +	+ +	+ +	++	5 5		
Intestine Small, Duodenum		+	+	+	+	+	5		
Intestine Small, Ileum		+	+	+	+	+	5		
Intestine Small, Jejunum		+	+	+	+	+	5		
Liver		+	+	+	+	+	5		
Infiltration Cellular, Mixed Cell		1	1	1	1	1	Ū.	5	1.0
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

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

.... - 10 Species/Strain:

Species/Strain: Mouse/P53(C57BL/6)						
DAY ON TEST	0	0	0	0	0	
P53(C57BL/6) Mouse Male	0 2	$\begin{array}{c} 0\\ 2 \end{array}$	0 2	$\begin{array}{c} 0\\ 2\end{array}$	$\begin{array}{c} 0\\ 2 \end{array}$	
0 ppm	9	9	9	9	9	
ANIMAL ID	0 0	0	0	0	0	
	0	0	0	Ō	0	
	0 1	02	03	04	0 5	*TOTALS
Genital System						
Epididymis	+	+	+	+	+	5
Inflammation					1	1 1.0

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

Inflammation					1		1	1.0
Testes	+	+	+	+	+	5		
Degeneration			1				1	1.0
Hematopoietic System								
Lymph Node	+	+	+	+	+	5		
Lymph Node, Mandibular	+	+	+	+	+	5		
Lymph Node, Mesenteric	+	+	+	+	+	5		
Atrophy		2		1			2	1.5
Spleen	+	+	+	+	+	5		
Lymph Follic, Atrophy					1		1	1.0
Thymus	+	+	+	+	+	5		
Integumentary System								
NONE								
Musculoskeletal System								
NONE								
Nervous System								

NONE

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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

1-4 .. Lesion qualified as: 1) Minimal 3) Moderate 2) Mild 4) Marked

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

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

DAY ON TEST P53(C57BL/6) Mouse Male 0 ppm ANIMAL ID	0 2 9 0 0 0 0 0 1	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	*ТОТА	LS
Respiratory System Lung Special Senses System NONE Urinary System	+	+	+	+	+	5	
Kidney Papilla, Mineralization Urinary Bladder	+	+ 1 +	+	+	+ 1 +	5 2 5	1.0

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ..Missing tissue A ..Autolysis precludes evaluation BLANK ..Not examined microscopically 1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

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Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIM	۱L
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Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse N 625 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			
	ANIMAL ID	0 0 0 6	0 0 0 7	0 0 0 0 8	0 0 0 9	0 0 0 1 0	*TC	ΟΤΑ	LS
Alimentary System									
Intestine Large, Cecum Epithelium, Hyperplasia		+ 1	+	+ 1	+	+	5	2	1.0
Intestine Large, Colon		+	+	+	+	+	5		
Intestine Large, Rectum		+	+	+	+	+	5		
Intestine Small, Duodenum		+	+	+	+	+	5		
Intestine Small, Ileum		+	+	+	+	+	5		
Intestine Small, Jejunum		+	+	+	+	+	5		
Liver Infiltration Cellular, Mixed Ce	.u	+ 1	+ 1	+ 1	+ 1	+ 1	5	5	1.0
Stomach, Forestomach	-11	י +	י +	י +	י +	י +	5	5	1.0
Stomach, Glandular		+	+	+	+	+	5		
Cardiovascular System			•	•	•	•	0		
NONE									
Endocrine System									
Adrenal Cortex		+	+	+	+	+	5		
Adrenal Medulla		+	+	+	+	+	5		
Pituitary Gland		+	+	+	+	+	5		
Thyroid Gland		+	+	+	+	+	5		
General Body System									

NONE

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse 625 ppm	DAY ON TEST Male	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9			
	ANIMAL ID	00006	0 0 0 7	0 0 0 8	0 0 0 9	0 0 0 1 0	*TC	DTA	LS
Genital System									
Epididymis		+	+	+	+	+	5		
Testes Hematopoietic System		+	+	+	+	+	5		
Lymph Node		М	+	+	+ 2	+	4	0	4 5
Mediastinal, Atrophy Lymph Node, Mandibular		+	+	+	2+	1 +	5	2	1.5
Lymph Node, Mesenteric		+	+	+	+	+	5		
Spleen		+	+	+	+	+	5		
Thymus		+	+	+	+	+	5		
Integumentary System									
NONE Musculoskeletal System									
NONE Nervous System									
NONE Respiratory System									
Lung Special Senses System		+	+	+	+	+	5		

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

DAY ON TEST P53(C57BL/6) Mouse Male	$ \begin{array}{c} 0\\ 0\\ 2\\ 9 \end{array} $	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
625 ppm ANIMAL ID	0	0 0 0 0 7	0 0 0 0 8	0 0 0 0 9	0 0 0 1 0	*TOTALS
NONE Urinary System						

Kidney	+	+	+	+	+	5		
Nephropathy					1		1	1.0
Urinary Bladder	+	+	+	+	+	5		

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ..Missing tissue A ..Autolysis precludes evaluation BLANK ..Not examined microscopically 1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

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Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS 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: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse M 1250 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			
	ANIMAL ID	0 0 1 1	0 0 1 2	0 0 1 3	0 0 1 4	0 0 1 5	*TC	OTA	LS_
Alimentary System									
Intestine Large, Cecum		+	+	+	+	+	5		
Epithelium, Hyperplasia					1			1	1.0
Intestine Large, Colon		+	+	+	+	+	5		
Epithelium, Hyperplasia					1		-	1	1.0
Intestine Large, Rectum		+	+	+	+	+	5		
Intestine Small, Duodenum		+	+	+	+	+	5 5		
Intestine Small, Ileum Intestine Small, Jejunum		+ +	+ +	+ +	+ +	+ +	5 5		
Liver		+	+	+	+	+	5		
Infiltration Cellular, Mixed Ce	I	1	1	1	1	1	0	5	1.0
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									

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

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 Male 2 9 2 9 2 9 2 9 2 9 1250 ppm 0 0 0 0 0 0 0 1 2 ANIMAL ID Õ 0 0 0 0 0 0 1 5 1 1 1 3 ***TOTALS** 1 4 NONE **Genital System** Epididymis 5 + + + Inflammation 1 1.0 1 Testes 5 + + Hematopoietic System I vmph Node 5 Т -ᆂ 1 n

	Ŧ	Ŧ	Ŧ	Ŧ	Ŧ	5		
Mediastinal, Atrophy		1					1	1.0
Lymph Node, Mandibular	+	+	+	+	+	5		
Lymph Node, Mesenteric	+	+	+	+	+	5		
Atrophy		1					1	1.0
Spleen	+	+	+	+	+	5		
Thymus	+	+	+	+	+	5		
-								

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

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Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

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

DAY ON TEST P53(C57BL/6) Mouse Male 1250 ppm ANIMAL ID	0 0 2 9 0 0 0 0 1	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0 0	
	1	2	3	4	5	*TOTALS
Respiratory System						
Lung	+	+	+	+	+	5
Special Senses System						
NONE						
Urinary System						
Kidney	+	+	+	+	+	5
Urinary Bladder	+	+	+	+	+	5
Inflammation, Granulomatous, Focal				1		1 1.0

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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

1-4 .. Lesion qualified as: 1) Minimal 3) Moderate 2) Mild 4) Marked

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse N 2500 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			
	ANIMAL ID	0 0 1 6	0 0 1 7	0 0 0 1 8	0 0 1 9	0 0 2 0	*TC	ЭТА	LS
Alimentary System									
Intestine Large, Cecum		+	+	+	+	+	5		
Epithelium, Hyperplasia					1			1	1.0
Intestine Large, Colon		+	+	+	+	+	5		
Epithelium, Hyperplasia					1			1	1.0
Intestine Large, Rectum		+	+	+	+	+	5		
Intestine Small, Duodenum		+	+	+	+	+	5		
Intestine Small, Ileum		+	+	+	+	+	5		
Intestine Small, Jejunum		+	+	+	+	+	5		
Liver		+	+	+	+	+	5		
Infiltration Cellular, Mixed Ce		1	1	1		1	_	4	1.0
Stomach, Forestomach		+	+	+	+	+	5		
Stomach, Glandular		+	+	+	+	+	5		
Cardiovascular System									
NONE									
Endocrine System									
Adrenal Cortex		+	+	+	+	+	5		
Atrophy		1						1	1.0
Adrenal Medulla		+	+	+	+	+	5		
Pituitary Gland		+	+	+	+	+	5		
Thyroid Gland		+	+	+	+	+	5		

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL AI	VIMAL
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Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

	DAY ON TEST	0	0	0	0	0			
P53(C57BL/6) Mouse I	Male	$\begin{array}{c} 0\\ 2\end{array}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{array}{c} 0\\ 2\end{array}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$			
2500 ppm		9	9	9	9	9			
	ANIMAL ID	0	0	0	0 0	0			
		0	0	Ō	0	0			
		1 6	17	1 8	1 9	2 0	*TC	ΟΤΑ	LS
General Body System									
NONE									
Genital System									
Epididymis		+	+	+	+	+	5		
Testes		+	+	+	+	+	5		
Hematopoietic System									
Lymph Node		+	+	+	+	+	5		
Lymph Node, Mandibular		+	+	+	+	+	5		
Lymph Node, Mesenteric		+	+	+	+	+	5		
Atrophy		2						1	2.0
Spleen		+	+	+	+	+	5		
Lymph Follic, Atrophy		1						1	1.0
Pigmentation, Hemosiderin						1		1	1.0
Thymus		+	+	+	+	+	5		
Integumentary System									

NONE

Musculoskeletal System

NONE

Nervous System

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

DAY ON TEST P53(C57BL/6) Mouse Male 2500 ppm	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	
ANIMAL ID	0 0 1 6	0 0 0 1 7	0 0 1 8	0 0 1 9	0 0 2 0	*TOTALS
NONE Respiratory System						
Lung Special Senses System	+	+	+	+	+	5
NONE Urinary System						
Kidney Urinary Bladder	+ +	+ +	+ +	+ +	+ +	5 5

 $^{*}\,$..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ..Missing tissue A ..Autolysis precludes evaluation BLANK ..Not examined microscopically 1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

D	AY ON TEST	0	0	0	0	0			
P53(C57BL/6) Mouse Ma	ale	0 2	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{array}{c} 0\\ 2\end{array}$	$\begin{array}{c} 0\\ 2\end{array}$	0 2			
5000 ppm		<i>9</i>	<i>9</i>	<i>9</i>	<i>9</i>	9			
	ANIMAL ID	0 0	0	0	0	0 0			
		0	Ō	0	0	0			
		2 1	2	2 3	2 4	2 5	*TC	ЭΤΑ	LS
Alimentary System								-	
Intestine Large, Cecum		+	+	+	+	+	5		
Epithelium, Hyperplasia		1	1		1			3	1.0
Intestine Large, Colon		+	+	+	+	+	5		
Epithelium, Hyperplasia		1	1	1	2			4	1.3
Intestine Large, Rectum		+	+	+	+	+	5		
Intestine Small, Duodenum		+	+	+	+	+	5		
Intestine Small, Ileum		+	+	+	+	+	5		
Intestine Small, Jejunum		+	+	+	+	+	5		
Liver		+	+	+	+	+	5		
Infiltration Cellular, Mixed Cell		1	1	1	1	1		5	1.0
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									

-

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse I 5000 ppm	DAY ON TEST Male ANIMAL ID	0 0 2 9 0 0 0 2 1	0 0 2 9 0 0 0 2 2	0 0 2 9 0 0 0 2 3	0 0 2 9 0 0 0 2 4	0 0 2 9 0 0 0 2 5	*TC	ΟΤΑ	LS
Genital System									
Epididymis Testes Hematopoietic System		+ +	+ +	+ +	+ +	+ +	5 5		
Lymph Node Lymph Node, Mandibular Lymph Node, Mesenteric Spleen Pigmentation, Hemosiderin Thymus Integumentary System		+ + + +	M + + +	+ + + +	+ + + +	+ + + 2 +	4 5 5 5	1	2.0
NONE Musculoskeletal System NONE									
Nervous System									
NONE Respiratory System									
Lung		+	+	+	+	+	5		

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

	1					
DAY ON TEST	0	0	0	0	0	
P53(C57BL/6) Mouse Male	0	0	0	0	0	
. ,	2	2	2	2	2	
5000 ppm	9	9	9	9	9	
ANIMAL ID	0	0	0	0	0	
	0 0		0	0	0	
	2	2	2	2	2	
	1	2	3	4	5	*TOTALS

Special Senses System

NONE Urinary System

Kidney	+	+	+	+	+	5
Urinary Bladder	+	+	+	+	+	5

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ...Missing tissue A ...Autolysis precludes evaluation BLANK ...Not examined microscopically 1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

D	AY ON TEST	0	0	0	0	0			
P53(C57BL/6) Mouse Ma	le	0 2	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	0 2			
10,000 ppm		9	9	9	9	9			
	ANIMAL ID	0 0	0	0	0	0 0			
		0	Ő	Ő	Ő	0			
		2 6	2 7	2 8	2 9	3 0	*TC	ΟΤΑ	LS
Alimentary System									
Intestine Large, Cecum		+	+	+	+	+	5		
Epithelium, Hyperplasia		2	2	2	2	1		5	1.8
Intestine Large, Colon		+	+	+	+	+	5		
Epithelium, Hyperplasia		2	2	2	2	2		5	2.0
Intestine Large, Rectum		+	+	+	+	+	5		
Intestine Small, Duodenum		+	+	+	+	+	5		
Intestine Small, Ileum		+	+	+	+	+	5		
Intestine Small, Jejunum		+	+	+	+	+	5		
Liver		+	+	+	+	+	5		
Infiltration Cellular, Mixed Cell		1	1	1	1	1		5	1.0
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									

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse 10,000 ppm	DAY ON TEST Male	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9			
	ANIMAL ID	0 0 2 6	0 0 2 7	0 0 2 8	0 0 2 9	0 0 3 0	*TC	ΟΤΑ	LS
NONE									
Genital System									
Epididymis		+	+	+	+	+	5		
Granuloma Sperm		2						1	2.0
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		

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

Urinary Bladder

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

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse Male 10,000 ppm	Y ON TEST	0 0 2 9 0 0 0 2 6	0 0 2 9 0 0 0 2 7	0 0 2 9 0 0 0 2 8	0 0 2 9 0 0 0 2 9	0 0 2 9 0 0 0 3 0	*TOTALS
Special Senses System NONE Urinary System Kidney Infiltration Cellular, Mixed Cell Papilla, Mineralization		+	+	+	+ 1	+ 1	5 1 1.0 1 1.0

END OF MALE DATA

5

+ + + + +

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Tool non neor exonic ecoloric brindburger annual

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

D. P53(C57BL/6) Mouse Fe 0 ppm		0 0 2 9 0	0 0 2 9	0 0 2 9	0 0 2 9 0	0 0 2 9			
	ANIMAL ID	0 0 3 1	0 0 3 2	0 0 3 3	0 0 3 4	0 0 3 5	*ТС	ΟΤΑ	LS
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		
Infiltration Cellular, Mixed Cell		1	1	1	1	1		5	1.0
Stomach, Forestomach		+	+	+	+	+	5		
Stomach, Glandular		+	+	+	+	+	5		
Glands, Ectasia					1			1	1.0
Cardiovascular System									
NONE									
Endocrine System									
Adrenal Cortex		+	+	+	+	+	5		
Adrenal Medulla		+	+	+	+	+	5		
Pituitary Gland		+	+	+	+	+	5		
Thyroid Gland		+	+	+	+	+	5		
Infiltration Cellular, Mononucles	ar Cl	2						1	2.0

General Body System

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

DA P53(C57BL/6) Mouse Fen 0 ppm	Y ON TEST	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 3 1	0 0 0 3 2	0 0 3 3	0 0 3 4	0 0 3 5	*T(ΟΤΑ	LS
NONE							-		
Genital System									
Ovary		+	+	+	+	+	5		
Uterus		+	+	+	+	+	5		
Hematopoietic System									
Lymph Node		+	+	+	+	+	5		
Mediastinal, Atrophy					2			1	2.0
Lymph Node, Mandibular		+	+	+	+	+	5		
Lymph Node, Mesenteric		+	+	+	+	+	5		
Spleen		+	+	+	+	+	5		
Hematopoietic Cell Proliferation			1			1		2	1.0
Thymus		+	+	+	+	+	5		
Integumentary System									
NONE									
Musculoskeletal System									
NONE Nervous System									
NONE									

Respiratory System

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ..Missing tissue A ..Autolysis precludes evaluation BLANK ..Not examined microscopically 1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

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Date Report Requested: 10/22/2014 Time Report Requested: 22:38:31 First Dose M/F: NA / NA Lab: BAT

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

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

DAY ON TEST P53(C57BL/6) Mouse Female 0 ppm ANIMAL ID	0 2 9 0 0 0 3 1	0 2 9 0 0 0 3 2	0 0 2 9 0 0 0 3 3	0 0 2 9 0 0 0 3 4	0 0 2 9 0 0 0 0 3 5	*TOTALS
Lung Special Senses System	+	+	+	+	+	5
NONE Urinary System						
Kidney Nephropathy Urinary Bladder	+	+	+ 1 +	+	+	5 1 1.0 5

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ...Missing tissue A ...Autolysis precludes evaluation BLANK ...Not examined microscopically 1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL AI	VIMAL
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Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

DAY ON TEST P53(C57BL/6) Mouse Female 625 ppm		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 3 6	0 0 0 3 7	0 0 0 3 8	0 0 0 3 9	0 0 0 4 0	*TC	ΟΤΑ	LS
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		
Infiltration Cellular, Mixed Cell		1	1	1	1	1		5	1.0
Stomach, Forestomach		+	+	+	+	+	5		
Stomach, Glandular		+	+	+	+	+	5		
Cardiovascular System									
NONE Endocrine System									
Adrenal Cortex		+	+	+	+	+	5		
Hyperplasia		1				1		2	1.0
Adrenal Medulla		+	+	+	+	+	5		
Pituitary Gland		+	+	+	+	+	5		
Thyroid Gland		+	+	+	+	+	5		
General Body System									

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

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: 22:38:32 First Dose M/F: NA / NA Lab: BAT

DA P53(C57BL/6) Mouse Fen 625 ppm	AY ON TEST nale ANIMAL ID	0 0 2 9 0 0	0 0 2 9 0 0	0 0 2 9 0 0	0 0 2 9 0 0	0 0 2 9 0 0			
		0 3 6	0 3 7	0 3 8	0 3 9	0 4 0	*Т(ΟΤΑ	LS
Genital System		-			_		`		
Ovary		+	+	+	+	+	5		
Uterus		+	+	+	+	+	5		
Hematopoietic System									
Lymph Node		+	+	+	+	+	5		
Lymph Node, Mandibular		+	+	+	+	+	5		
Lymph Node, Mesenteric		+	+	+	+	+	5		
Spleen		+	+	+	+	+	5	_	
Hematopoietic Cell Proliferation				1		1	-	2	1.0
Thymus Integumentary System		+	+	+	+	+	5		
NONE Musculoskeletal System									
NONE									
Nervous System									
NONE Respiratory System									
Lung Special Senses System		+	+	+	+	+	5		

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

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 3 6 0 0 0 3 7 ANIMAL ID Ō Õ 0 0 0 0 3 8 3 9 4 0 ***TOTALS** NONE

Urinary System

Kidney	+	+	+	+	+	5			
Infiltration Cellular, Mixed Cell					1		1	1.0	
Urinary Bladder	+	+	+	+	+	5			

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ..Missing tissue A ..Autolysis precludes evaluation BLANK ..Not examined microscopically 1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL A	NIMAL
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Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

DAY ON TEST P53(C57BL/6) Mouse Female 1250 ppm		0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9			
••	IMAL ID	0 0 4 1	0 0 4 2	0 0 4 3	0 0 4 4	0 0 0 4 5	*TC	ΟΤΑ	LS
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		
Infiltration Cellular, Mixed Cell		1	1	1	1	1		5	1.0
Stomach, Forestomach		+	+	+	+	+	5		
Stomach, Glandular		+	+	+	+	+	5		
Cardiovascular System									
NONE									
Endocrine System									
Adrenal Cortex		+	+	+	+	+	5		
Adrenal Medulla		+	+	+	+	+	5		
Pituitary Gland		+	+	М	+	+	4		
Thyroid Gland		+	+	+	+	+	5		
Infiltration Cellular, Mononuclear Cl						1		1	1.0
General Body System									

NONE

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

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 1250 ppm 0 0 0 0 0 0 0 ANIMAL ID Õ 0 0 0 0 0 0 0 4 2 4 5 4 4 3 4 ***TOTALS** 1 4 **Genital System** Ovary 5 5 Uterus Hematopoietic System Lymph Node Μ 4 + + + + Mediastinal, Hyperplasia 1 2 1.0 Lymph Node, Mandibular 5 + + + Lymph Node, Mesenteric 5 + 5 Spleen + + + Hematopoietic Cell Proliferation 2 1.0 1 1 5 Thymus + + +

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

Respiratory System

Lung

+ + + + + 5

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ..Missing tissue A ..Autolysis precludes evaluation BLANK ..Not examined microscopically 1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

	Г						1
	DAY ON TEST	0	0	0	0	0	
P53(C57BL/6) Mouse	Fomalo	0	0	0	0	0	
	remaie	2	2	2	2	2	
1250 ppm		9	9	9	9	9	
	ANIMAL ID	0	0	0	0	0	
		0	0	0	0	0	
		0	0	0	0	0	
		4	4	4	4	4	
		1	2	3	4	5	*TOTALS
Special Senses System							

NONE

Urinary System

Kidney	+	+	+	+	+	5
Urinary Bladder	+	+	+	+	+	5

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS 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: 22:38:32 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse F 2500 ppm	DAY ON TEST emale ANIMAL ID	0 0 2 9 0 0 0 0	0 0 2 9 0 0 0	0 0 2 9 0 0 0	0 0 2 9 0 0 0	0 0 2 9 0 0 0			
		4 6	4 7	4 8	4 9	5 0	*TC	ЭΤΑ	LS
Alimentary System									
Intestine Large, Cecum		+	+	+	+	+	5		
Epithelium, Hyperplasia			1			1		2	1.0
Intestine Large, Colon		+	+	+	+	+	5		
Epithelium, Hyperplasia			1					1	1.0
Intestine Large, Rectum		+	+	+	+	+	5		
Intestine Small, Duodenum		+	+	+	+	+	5		
Intestine Small, Ileum		+	+	+	+	+	5		
Intestine Small, Jejunum		+	+	+	+	+	5		
Liver		+	+	+	+	+	5		
Infiltration Cellular, Mixed Ce		1	1	1	1	1		5	1.0
Stomach, Forestomach		+	+	+	+	+	5		
Stomach, Glandular		+	+	+	+	+	5		
Cardiovascular System									
NONE									
Endocrine System									
Adrenal Cortex		+	+	+	+	+	5		
Atrophy		1						1	1.0
Hyperplasia					1			1	1.0
Adrenal Medulla		+	+	+	+	+	5		
Pituitary Gland		+	+	+	+	+	5		

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

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 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	*TC	ΟΤΑ	<u>LS</u>
Thyroid Gland		+	+	+	+	+	5		
Infiltration Cellular, Mononucl	ear Cl			2				1	2.0
General Body System									
NONE									
Genital System									
Ovary		+	+	+	+	+	5		
Uterus		+	+	+	+	+	5		
Hematopoietic System									
Lymph Node		+	+	+	+	+	5		
Lymph Node, Mandibular		+	+	+	+	+	5		
Lymph Node, Mesenteric		+	+	+	+	+	5		
Spleen		+	+	+	+	+	5		
Hematopoietic Cell Proliferati	on	1			1			2	1.0
Thymus		+	+	+	+	+	5		
Integumentary System									

NONE

Musculoskeletal System

NONE

Nervous System

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ..Missing tissue A ..Autolysis precludes evaluation BLANK ..Not examined microscopically 1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

P09: NON-NEOPLASTIC LESIONS 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	
DE2/CE7DL/G) Mayon Famala	0	0	0	0	0	
P53(C57BL/6) Mouse Female	2	2	2	2	2	1
2500 ppm	9	9	9	9	9	1
ANIMAL ID	0	0	0	0	0	1
	0	0	0	0	0	1
	0	0	0	0	0	1
	4	4	4	4	5	****
	6	7	8	9	0	*TOTALS
NONE						
Respiratory System						
Lung	+	+	+	+	+	5
Infiltration Cellular, Mononuclear Cl					1	1 1.0
Special Senses System						-
NONE						
Urinary System						
Urinary System						
Kidney	+	+	+	+	+	5
Urinary Bladder	+	+	+	+	+	5
						-

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

+ ..Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ..Missing tissue A ..Autolysis precludes evaluation BLANK ..Not examined microscopically 1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

P53(C57BL/6) Mouse F 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 5 1	0 0 5 2	0 0 5 3	0 0 5 4	0 0 5 5	*TC	DTA	LS
Alimentary System									
Intestine Large, Cecum		+	+	+	+	+	5		
Epithelium, Hyperplasia		1	1	1	1			4	1.0
Intestine Large, Colon		+	+	+	+	+	5		
Epithelium, Hyperplasia		1	2	1	1	2		5	1.4
Intestine Large, Rectum		+	+	+	+	+	5		
Intestine Small, Duodenum		+	+	+	+	+	5		
Intestine Small, Ileum		+	+	+	+	+	5		
Intestine Small, Jejunum		+	+	+	+	+	5		
Liver		+	+	+	+	+	5		
Hepatocyte, Vacuolization C	• •					4		1	4.0
Infiltration Cellular, Mixed C	ell	1	1	1	1			4	1.0
Stomach, Forestomach		+	+	+	+	+	5		
Stomach, Glandular		+	+	+	+	+	5		
Cardiovascular System									
NONE									
Endocrine System									
Adrenal Cortex		+	+	+	+	+	5		
Adrenal Medulla		+	+	+	+	+	5		
Pituitary Gland		+	+	+	+	+	5		
Thyroid Gland		+	+	+	+	+	5		

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P53(C57BL/6) Mouse F 5000 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			
	ANIMAL ID	0 0 5 1	0 0 5 2	0 0 5 3	0 0 5 4	0 0 5 5	*TC	ЭТА	LS
Infiltration Cellular, Lipocyte General Body System						2		1	2.0
NONE Genital System									
Ovary		+	+	+	+	+	5		
Uterus		+	+	+	+	+	5		
Hematopoietic System									
Lymph Node		+	+	+	+	+	5		
Mediastinal, Hyperplasia					1			1	1.0
Lymph Node, Mandibular		+	+	+	+	+	5		
Lymph Node, Mesenteric		+	+	+	+	+	5		
Spleen		+	+	+	+	+	5		
Hematopoietic Cell Prolifera	tion			1				1	1.0
Lymph Follic, Atrophy						1		1	1.0
Thymus		+	+	+	+	+	5		
Atrophy						3		1	3.0
Integumentary System									

Integumentary System

NONE

Musculoskeletal System

NONE

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

M ...Missing tissue A ...Autolysis precludes evaluation

BLANK ... Not examined microscopically

1-4 ..Lesion qualified as:1) Minimal 3) Moderate2) Mild 4) Marked

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

Test Type: 18-33 DAYS

Route: DOSED FEED

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

DAY ON P53(C57BL/6) Mouse Female 5000 ppm	TEST	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9	0 0 2 9			
ANIM	IAL ID	0 0 0 5 1	0 0 5 2	0 0 5 3	0 0 5 4	0 0 0 5 5	*TC)TA	LS
Nervous System									
NONE Respiratory System									
Lung Special Senses System		+	+	+	+	+	5		
NONE Urinary System									
Kidney		+	+	+	+	+	5		4.0
Infiltration Cellular, Mixed Cell Urinary Bladder		+	1 +	+	+	+	5	1	1.0

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

+ .. Tissue examined microscopically

X ..Lesion present

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Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

Test Type: 18-33 DAYS

Route: DOSED FEED

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

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

	DAY ON TEST	0	0	0	0	0			
P53(C57BL/6) Mouse F	emale	0 2	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$	$\begin{vmatrix} 0\\2 \end{vmatrix}$			
10,000 ppm		<i>9</i>	<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 0	0 0 0			
		5 6	57	58	59	6 0	*TC	ΟΤΑ	LS
Alimentary System									
Intestine Large, Cecum		+	+	+	+	+	5		
Epithelium, Hyperplasia		2	2	2	2	1		5	1.8
Intestine Large, Colon		+	+	+	+	+	5		
Epithelium, Hyperplasia		3	3	3	3	3		5	3.0
Intestine Large, Rectum		+	+	+	+	+	5		
Epithelium, Hyperplasia		1			1	1		3	1.0
Intestine Small, Duodenum		+	+	+	+	+	5		
Intestine Small, Ileum		+	+	+	+	+	5		
Intestine Small, Jejunum		+	+	+	+	+	5		
Liver		+	+	+	+	+	5		
Infiltration Cellular, Mixed Ce	II	1	1	1	1	1		5	1.0
Stomach, Forestomach		+	+	+	+	+	5		
Stomach, Glandular		+	+	+	+	+	5		
Cardiovascular System									
NONE									
Endocrine System									
Adrenal Cortex		+	+	+	+	+	5		
Hyperplasia				1				1	1.0
Adrenal Medulla		+	+	+	+	+	5		
Pituitary Gland		+	+	+	+	+	5		

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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

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 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	*TC	DTA	LS	
Thyroid Gland		+	+	+	+	+	5			
General Body System										
NONE										
Genital System										
Ovary		+	+	+	+	+	5			
Uterus		+	+	+	+	+	5			
Hematopoietic System										
Lymph Node		+	+	+	М	+	4			
Lymph Node, Mandibular		+	+	+	+	+	5			
Lymph Node, Mesenteric		+	+	+	+	+	5			
Spleen		+	+	+	+	+	5			
Hematopoietic Cell Proliferation	ation		1	1	1			3	1.0	
Pigmentation, Hemosiderin						1		1	1.0	
Thymus		+	+	+	+	+	5			
Integumentary System										
NONE										

NONE

Musculoskeletal System

NONE

Nervous System

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

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: Senna (powdered)

CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

A .. Autolysis precludes evaluation

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CAS Number: 8013-11-4

Date Report Requested: 10/22/2014 Time Report Requested: 22:38:32 First Dose M/F: NA / NA Lab: BAT

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
NONE		0	1	0	9	0	
Respiratory System							
Lung		+	+	+	+	+	5
Special Senses System							
NONE							
Urinary System							
Kidney		+	+	+	+	+	5
Nephropathy			1		1		2 1.0
Papilla, Mineralization						1	1 1.0
Urinary Bladder		+	+	+	+	+	5
							** END OF REPORT **

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

+ .. Tissue examined microscopically

X ..Lesion present

I .. Insufficient tissue

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