Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 **Time Report Requested:** 09:53:55 **First Dose M/F:** 03/14/07 / 03/15/07

Lab: BAT

F1_HSD

NTP Study Number: C20006B

Lock Date: 06/21/2010

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Study Gender: Both

TDMSE Version: 3.0.1.1_001

PWG Approval Date: NONE

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

Experiment Number: 20006 - 03

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Haday Ones and Davids DATO MALE	0	75	450	000 //
Harlan Sprague Dawley RATS MALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg
Disposition Summary				
Animals Initially In Study	50	50	50	50
Early Deaths				
Dosing Accident	4.4	00	45	1
Moribund Sacrifice Natural Death	14 16	23 14	15 18	20 17
Survivors	10	14	10	17
Terminal Sacrifice	20	13	17	12
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Inflammation		1 (2%)		
Epithelium, Hyperplasia		1 (2%)		
Intestine Large, Cecum	(50)	(50)	(50)	(50)
Hyperplasia, Lymphoid		1 (2%)		
Necrosis	1 (2%)	1 (2%)		
Intestine Large, Colon	(50)	(50)	(50)	(50)
Erosion	1 (2%)			
Intestine Large, Rectum	(50)	(50)	(50)	(50)
Fibrosis				1 (2%)
Intestine Small, Duodenum	(43)	(48)	(47)	(48)
Lymphatic, Ectasia			15 (32%)	14 (29%)
Intestine Small, Ileum	(35)	(43)	(42)	(38)
Intestine Small, Jejunum	(40)	(39)	(40)	(42)
Lymphatic, Ectasia		2 (5%)	27 (68%)	41 (98%)
Liver	(50)	(50)	(50)	(50)
Angiectasis	1 (2%)			. (50)
Basophilic Focus	3 (6%)	((22()	3 (6%)	1 (2%)
Cholangiofibrosis	4.4 (000)	1 (2%)	3 (6%)	1 (2%)
Clear Cell Focus	14 (28%)	13 (26%)	18 (36%)	9 (18%)
Degeneration, Cystic	40 (000()	40 (040()	1 (2%)	0 (400()
Eosinophilic Focus	10 (20%)	12 (24%)	10 (20%)	6 (12%)
Hepatodiaphragmatic Nodule	2 (4%)		1 (2%)	1 (2%)

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

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

Experiment Number: 20006 - 03

Indole-3-carbinol
CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Mixed Cell Focus 4 (8%) 2 (4%) 1 (2%) 2 (4%) Necrosis 3 (6%) 3 (6%) 5 (10%) 7 (14%) Artery, Inflammation, Chronic Active 1 (2%) 5 (10%) Bile Duct, Cyst Multiple 1 (2%) 5 (10%) Bile Duct, Fibrosis 2 (4%) 4 (8%) 3 (6%) 3 (6%) Oval Cell, Hyperplasia 7 (14%) 4 (8%) 3 (6%) 3 (6%) Oval Cell, Hyperplasia 1 (2%) 1 (2%) 1 (2%) Perjortal, Inflammation, Chronic Active 1 (2%) 1 (2%) 1 (2%) Assentary (2) (2) (1) (0) Artery, Inflammation, Chronic Active 1 (50%) 5 (50) (50) (50) Artery, Inflammation, Chronic Active 1 (2%) 2 (4%) 1 (2%) Fait, Necrosis 1 (50%) (50) (50) (50) (50) Foreign Body 1 (2%) 2 (4%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%)	arlan Sprague Dawley RATS MALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
Artery, Inflammation, Chronic Active 1 (2%) 5 (10%) Bile Duct, Cyst, Multiple 1 (2%) 1 (2%) Bile Duct, Fibrosis 2 (4%) 1 (2%) 1 (2%) Bile Duct, Hyperplasia 7 (14%) 4 (8%) 3 (6%) 3 (6%) Oval Cell, Hyperplasia 1 (2%) 1 (2%) 1 (2%) Mesentery (2) (2) (1) (0) Artery, Inflammation, Chronic Active 1 (50%) 5 (50) (50) 5 (50) Artery, Inflammation, Chronic Active 1 (50%) 5 (50) 5 (50) 5 (50) Artery, Mineralization 1 (50%) 5 (50) 5 (50) 5 (50) Fat, Recrosis 1 (50%) 5 (50) 5 (50) 5 (50) Oral Mucosa (50) 5 (50) 5 (50) 5 (50) Fooreign Body 1 (2%) 2 (4%) 1 (2%) Pancreas (50) (50) 5 (50) (49) Aringiectasis 1 (2%) 1 (2%) 1 (2%) Arinus, Hyperplasia 1 (6 (32%) 1 (2%)	Mixed Cell Focus	4 (8%)	2 (4%)	1 (2%)	2 (4%)	
Bile Duct, Cyst 1 (2%) 5 (10%) Bile Duct, Flbrosis 2 (4%) 1 (2%) 1 (2%) Bile Duct, Flbrosis 2 (4%) 4 (8%) 3 (6%) 3 (6%) Oval Cell, Hyperplasia 7 (14%) 4 (8%) 3 (6%) 3 (6%) Oval Cell, Hyperplasia 1 (2%) 1 (2%) 1 (2%) Mesentery 1 (2%) 1 (0) 1 (2%) Artery, Inflarmation, Chronic Active 1 (50%) (50) (50) (50) Artery, Mineralization 1 (50%) 50 (50) (50) (50) Foreign Body 1 (50%) 50 (50) (50) (50) (50) Foreign Body 1 (2%) 2 (4%) 1 (2%)	Necrosis	3 (6%)	3 (6%)	5 (10%)	7 (14%)	
Bile Duct, Cyst 1 (2%) 5 (10%) Bile Duct, Fibrosis 2 (4%) 1 (2%) 1 (2%) Bile Duct, Fibrosis 2 (4%) 4 (8%) 3 (6%) 3 (6%) Oval Cell, Hyperplasia 7 (14%) 4 (8%) 3 (6%) 3 (6%) Oval Cell, Hyperplasia 1 (2%) 1 (2%) 1 (2%) Mesentery (2) (2) (1) (0) Artery, Inflammation, Chronic Active 1 (50%) (50) (50) (50) (50) Artery, Mineralization 1 (50%) 5 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7 8 8 8 8 9 8 9 <td>Artery, Inflammation, Chronic Active</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Artery, Inflammation, Chronic Active					
Bile Duct, Fibrosis 2 (4%) 1 (2%) 1 (2%) Bile Duct, Hyperplasia 7 (14%) 4 (8%) 3 (6%) Oval Cell, Hyperplasia 1 (2%) Periportal, Inflammation, Chronic Active 1 (2%) Mesentery (2) (2) (1) (0) Artery, Inflammation, Chronic Active 1 (50%) ************************************	Bile Duct, Cyst			1 (2%)	5 (10%)	
Bile Duct, Hyperplasia 7 (14%) 4 (8%) 3 (6%) 3 (6%) Oval Cell, Hyperplasia 1 (2%) 1 (2%) Mesentery (2) (2) (1) (0) Artery, Inflammation, Chronic Active 1 (50%) 1 (50%) 1 (50%) Artery, Inflammation, Chronic Active 1 (50%) 50 (50) (50) Fat, Necrosis 1 (5%) 1 (2%) 1 (2%) 1 (2%) Foreign Body 1 (2%) 2 (4%) 1 (2%) Hyperplasia, Squamous 5 (50) (50) (50) (50) Sebaceous Gland, Ectopic Tissue 5 (50) (50) (49) 1 (2%) Pancreas (50) (50) (50) (49) 1 (2%) Acinus, Atrophy 1 (2%) 1 (2%) 2 (4%) 1 (2%) Acinus, Atrophy 1 (32%) 10 (20%) 14 (28%) 10 (20%) Activary, Glands (50) (50) (50) (50) Salivary Glands (50) (50) (50) (50) Stom	Bile Duct, Cyst, Multiple			1 (2%)		
Oval Cell, Hyperplasia 1 (2%) Periportal, Inflammation, Chronic Active 1 (2%) (2) (1) (0) Artery, Inflammation, Chronic Active 1 (50%) ————————————————————————————————————	Bile Duct, Fibrosis	2 (4%)		1 (2%)	1 (2%)	
Oval Cell, Hyperplasia 1 (2%) Periportal, Inflammation, Chronic Active 1 (2%) (2) (1) (0) Artery, Inflammation, Chronic Active 1 (50%) ————————————————————————————————————	Bile Duct, Hyperplasia	7 (14%)	4 (8%)	3 (6%)	3 (6%)	
Periportal, Inflammation, Chronic Active 1 (2%) Mesentery (2) (2) (1) (0) Artery, Inflammation, Chronic Active 1 (50%) *** *** Artery, Inflammation, Chronic Active 1 (50%) *** *** Fat, Necrosis 1 (50%) *** *** Forigin Body 1 (2%) *** 1 (2%) Hyperplasia, Squamous (50) (50) (50) (49) Pancreas (50) (50) (50) (49) Pancreas (50) (50) (50) (49) Angiectasis 1 (2%) 1 (2%) 1 (2%) Angiectasis 1 (2%) 1 (2%) 2 (4%) Acinus, Atrophy 1 (2%) 1 (2%) 2 (4%) Acinus, Hyperplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Artery, Inflammation, Chronic Active 22 (44%) 32 (46%) 27 (54%) 21 (4%) Slomach, Forestomach (50) (50) (50) (50) (50) <t< td=""><td>Oval Cell, Hyperplasia</td><td></td><td></td><td></td><td></td><td></td></t<>	Oval Cell, Hyperplasia					
Artery, Inflammation, Chronic Active 1 (50%) Artery, Mineralization 1 (50%) Fat, Necrosis 1 (50%) Oral Mucosa (50) (50) (50) (50) Foreign Body 1 (2%) 2 (4%) 1 (2%) Hyperplasia, Squamous (50) (50) (50) (49) Sebaceous Gland, Ectopic Tissue (50) (50) (49) Pancreas (50) (50) (50) (49) Angiectais 1 (2%) 2 (4%) 2 (4%) Annius, Atrophy 1 (2%) 2 (4%) 2 (4%) Acinus, Phyerplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Artery, Inflammation, Chronic Active 22 (44%) 32 (64%) 27 (54%) 21 (43%) Salivary Glands (50) (50) (49) (50) Metaplasia 1 (2%) 2 (4%) Stomach, Forestomach (50) (50) (50) (50) Erosion 1 (2%) 4 (8%) 1 (2%) Necrosis		1 (2%)			, ,	
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Artery, Mineralization 1 (50%) Fat, Necrosis 1 (50%) Oral Mucosa (50) (50) (50) Foreign Body 1 (2%) 1 (2%) Hyperplasia, Squamous 1 (2%) 2 (4%) 1 (2%) Sebaceous Gland, Ectopic Tissue (50) (50) (50) (49) Pancreas (50) (50) (50) (49) Angiectasis 1 (2%) 1 (2%) Acinus, Atrophy 1 (2%) 2 (4%) 10 (20%) Acinus, Hyperplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Acinus, Hyperplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Acinus, Hyperplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Acinus, Hyperplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Acinus, Hyperplasia (50) (50) (49) (50) Salivary Glands (50) (50) (49) (50) Metaplasia 19 (38%) 19 (38%) 19 (38%)					, ,	
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Foreign Body 1 (2%) Hyperplasia, Squamous 1 (2%) 2 (4%) 1 (2%) Sebaceous Gland, Ectopic Tissue (50) (50) (50) (49) Pancreas (50) (50) (50) (49) Angiectasis 1 (2%) 1 (2%) Thrombosis 1 (2%) 2 (4%) Acinus, Atrophy 1 (2%) 2 (4%) Acinus, Hyperplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Artery, Inflammation, Chronic Active 22 (44%) 32 (64%) 27 (54%) 21 (43%) Salivary Glands (50) (50) (49) (50) Metaplasia (50) (50) (50) (50) Stomach, Forestomach (50) (50) (50) (50) Erosion 1 (2%) 1 (2%) 1 (2%) Hyperplasia 19 (38%) 19 (38%) 19 (38%) 22 (44%) Inflammation 2 (4%) 1 (2%) 4 (8%) 1 (2%) Ulcer 2 (4%) 1 (2%) <th< td=""><td>Oral Mucosa</td><td></td><td>(50)</td><td>(50)</td><td>(50)</td><td></td></th<>	Oral Mucosa		(50)	(50)	(50)	
Hyperplasia, Squamous 1 (2%) 2 (4%) 1 (2%) Sebaceous Gland, Ectopic Tissue (50) (50) (50) (49) Pancreas (50) (50) (50) (49) Angiectasis 1 (2%) 1 (2%) Thrombosis 1 (2%) 2 (4%) Acinus, Atrophy 1 (6) 1 (2%) 2 (4%) Acinus, Hyperplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Artery, Inflammation, Chronic Active 22 (44%) 32 (64%) 27 (54%) 21 (43%) Salivary Glands (50) (50) (49) (50) Stomach, Forestomach (50) (50) (50) (50) Erosion 1 (2%) 1 (2%) 1 (2%) Hyperplasia 19 (38%) 19 (38%) 19 (38%) 22 (44%) Inflammation 2 (4%) 4 (8%) 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) Ulcer 2 (4%) <	Foreign Body	, ,		, ,	, ,	
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Pancreas (50) (50) (50) (49) Angiectasis 1 (2%) 1 (2%) Thrombosis 1 (2%) 2 (4%) Acinus, Atrophy 1 (2%) 14 (28%) 10 (20%) Acinus, Hyperplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Artery, Inflammation, Chronic Active 22 (44%) 32 (64%) 27 (54%) 21 (43%) Salivary Glands (50) (50) (49) (50) Metaplasia (50) (50) (50) (50) Stomach, Forestomach (50) (50) (50) (50) Hyperplasia 19 (38%) 19 (38%) 22 (44%) Inflammation 2 (4%) 1 (2%) 1 (2%) Vicerosis 1 (2%) 4 (8%) 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) Epithelium, Amyloid Deposition 1 (2%) 1 (2%) 1 (2%) Epithelium, Inflammation 1 (2%)			, ,	, ,		
Angiectasis Thrombosis Acinus, Atrophy Acinus, Hyperplasia Antery, Inflammation, Chronic Active 22 (44%) 32 (64%) 27 (54%) 21 (43%) Salivary Glands (50) (50) (50) (49) (50) Erosion Hyperplasia 19 (38%) 19 (38%) 19 (38%) 19 (38%) 19 (38%) 10 (20%) 14 (28%) 10 (20%) 14 (28%) 21 (43%) 25 (44%) 26 (49) (50) (50) (50) (50) (50) (50) (50) (50		(50)	(50)	(50)		
Acinus, Atrophy 1 (2%) 1 (2%) 2 (4%) Acinus, Hyperplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Artery, Inflammation, Chronic Active 22 (44%) 32 (64%) 27 (54%) 21 (43%) Salivary Glands (50) (50) (49) (50) Metaplasia 1 (2%) 2 (4%) Stomach, Forestomach (50) (50) (50) Erosion 1 (2%) 1 (2%) Hyperplasia 19 (38%) 19 (38%) 22 (44%) Inflammation 2 (4%) 1 (38%) 1 (2%) Vecrosis 1 (2%) 1 (2%) 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) Epithelium, Amyloid Deposition 1 (2%) 7 (14%) 3 (6%) Epithelium, Inflammation 1 (2%) 1 (2%) 3 (6%)	Angiectasis				1 (2%)	
Acinus, Hyperplasia 16 (32%) 10 (20%) 14 (28%) 10 (20%) Artery, Inflammation, Chronic Active 22 (44%) 32 (64%) 27 (54%) 21 (43%) Salivary Glands (50) (50) (49) (50) Metaplasia 1 (2%) 2 (4%) Stomach, Forestomach (50) (50) (50) Erosion 1 (2%) 1 (2%) Hyperplasia 19 (38%) 19 (38%) 22 (44%) Inflammation 2 (4%) 4 (8%) 1 (2%) Necrosis 1 (2%) 1 (2%) 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) (50) Epithelium, Amyloid Deposition 1 (2%) 1 (2%) 1 (2%) 1 (2%) Epithelium, Inflammation 1 (2%) 5 (10%) 7 (14%) 3 (6%)	Thrombosis		1 (2%)			
Artery, Inflammation, Chronic Active 22 (44%) 32 (64%) 27 (54%) 21 (43%) Salivary Glands (50) (50) (49) (50) Metaplasia 1 (2%) 2 (4%) Stomach, Forestomach (50) (50) (50) Erosion 1 (2%) 1 (2%) Hyperplasia 19 (38%) 19 (38%) 22 (44%) Inflammation 2 (4%) 4 (8%) 1 (2%) Necrosis 1 (2%) 1 (2%) 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) (50) Epithelium, Amyloid Deposition 1 (2%) 7 (14%) 3 (6%) Epithelium, Inflammation 1 (2%) 5 (10%) 7 (14%) 3 (6%)	Acinus, Atrophy	1 (2%)			2 (4%)	
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Metaplasia 1 (2%) 2 (4%) Stomach, Forestomach (50) (50) (50) Erosion 1 (2%) 1 (2%) Hyperplasia 19 (38%) 19 (38%) 19 (38%) 22 (44%) Inflammation 2 (4%) 4 (8%) 1 (2%) Necrosis 1 (2%) 1 (2%) 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) Epithelium, Amyloid Deposition 1 (2%) 1 (2%) 3 (6%) Epithelium, Hyperplasia 2 (4%) 5 (10%) 7 (14%) 3 (6%) Epithelium, Inflammation 1 (2%) 1 (2%) 1 (2%) 1 (2%)	Artery, Inflammation, Chronic Active	22 (44%)	32 (64%)	27 (54%)	21 (43%)	
Stomach, Forestomach (50) (50) (50) (50) Erosion 1 (2%) Hyperplasia 19 (38%) 19 (38%) 19 (38%) 22 (44%) Inflammation 2 (4%) 4 (8%) 1 (2%) Necrosis 1 (2%) 1 (2%) 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) Epithelium, Amyloid Deposition 1 (2%) 7 (14%) 3 (6%) Epithelium, Hyperplasia 2 (4%) 5 (10%) 7 (14%) 3 (6%) Epithelium, Inflammation 1 (2%) 1 (2%) 1 (2%) 1 (2%)	Salivary Glands	(50)	(50)	(49)	(50)	
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Erosion 1 (2%) Hyperplasia 19 (38%) 19 (38%) 19 (38%) 22 (44%) Inflammation 2 (4%) 4 (8%) 1 (2%) Necrosis 1 (2%) 1 (2%) 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) Epithelium, Amyloid Deposition 1 (2%) 7 (14%) 3 (6%) Epithelium, Hyperplasia 2 (4%) 5 (10%) 7 (14%) 3 (6%) Epithelium, Inflammation 1 (2%) 1 (2%) 1 (2%)	Stomach, Forestomach	(50)		(50)		
Inflammation 2 (4%) 4 (8%) 1 (2%) Necrosis 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) Epithelium, Amyloid Deposition 1 (2%) Epithelium, Hyperplasia 2 (4%) 5 (10%) 7 (14%) 3 (6%) Epithelium, Inflammation 1 (2%)	Erosion			1 (2%)		
Inflammation 2 (4%) 4 (8%) 1 (2%) Necrosis 1 (2%) Ulcer 2 (4%) 1 (2%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) Epithelium, Amyloid Deposition 1 (2%) Epithelium, Hyperplasia 2 (4%) 5 (10%) 7 (14%) 3 (6%) Epithelium, Inflammation 1 (2%)	Hyperplasia	19 (38%)	19 (38%)		22 (44%)	
Ulcer 2 (4%) 1 (2%) 1 (2%) 1 (2%) Stomach, Glandular (50) (50) (50) (50) Epithelium, Amyloid Deposition 1 (2%) Epithelium, Hyperplasia 2 (4%) 5 (10%) 7 (14%) 3 (6%) Epithelium, Inflammation 1 (2%)	Inflammation	2 (4%)		4 (8%)	1 (2%)	
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Epithelium, Amyloid Deposition1 (2%)Epithelium, Hyperplasia2 (4%)5 (10%)7 (14%)3 (6%)Epithelium, Inflammation1 (2%)	Stomach, Glandular					
Epithelium, Hyperplasia 2 (4%) 5 (10%) 7 (14%) 3 (6%) Epithelium, Inflammation 1 (2%)	Epithelium, Amyloid Deposition		•			
Epithelium, Inflammation 1 (2%)		2 (4%)	5 (10%)		3 (6%)	
	Epithelium, Inflammation		1 (2%)		• •	
		3 (6%)		2 (4%)	1 (2%)	

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

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
7 (14%)	12 (24%)	6 (12%)	10 (20%)	
1 (2%)				
	1 (2%)			
(0)		(0)	(1)	
(1)				
	, ,		. ,	
1 (100%)		, ,		
(50)	(50)	(50)	(50)	
1 (2%)				
30 (60%)	38 (76%)	30 (60%)	29 (58%)	
	2 (4%)	1 (2%)	1 (2%)	
		1 (2%)		
(50)	(50)	(50)	(50)	
47 (94%)	48 (96%)	49 (98%)	48 (96%)	
	, ,	, ,		
	3 (6%)	3 (6%)		
		,	,	
,	, ,	1 (2%)		
(50)	(49)	(50)	(50)	
			1 (2%)	
4 (8%)	3 (6%)	5 (10%)	4 (8%)	
8 (16%)	13 (27%)	5 (10%)	16 (32%)	
		1 (2%)		
		1 (2%)		
14 (28%)	19 (39%)	19 (38%)	6 (12%)	
	, ,	. ,		
, ,	1 (2%)		• •	
(50)	(49)	(50)	(50)	
	7 (14%) 1 (2%) (0) (1) 1 (100%) (50) 1 (2%) 30 (60%) (50) 47 (94%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 8 (16%)	7 (14%) 1 (2%) 1 (2%) (0) (0) (1) (0) 1 (100%) (50) 1 (2%) 30 (60%) 38 (76%) 2 (4%) (50) 47 (94%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) (50) (49) 4 (8%) 3 (6%) 1 (2%) (50) (49) 4 (8%) 3 (6%) 1 (27%)	7 (14%) 12 (24%) 6 (12%) 1 (2%) 1 (2%) (0) (0) (0) (1) 1 (100%) (50) (50) (50) 1 (2%) 30 (60%) 38 (76%) 30 (60%) 2 (4%) 1 (2%) (50) (50) (50) 47 (94%) 48 (96%) 49 (98%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) (50) (49) (50) (50) 4 (8%) 3 (6%) 3 (6%) 1 (2%) (50) (50) (50) 4 (2%) 1 (2%) (50) (49) (50) (50) 4 (8%) 3 (6%) 5 (10%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%)	7 (14%) 12 (24%) 6 (12%) 10 (20%) 1 (2%) 1 (2%) (0) (0) (0) (1) (1) (0) (1) (1) (0) (1) (1) (0) 1 (100%) (50) (50) (50) (50) (50) 1 (2%) 30 (60%) 38 (76%) 30 (60%) 29 (58%) 2 (4%) 1 (2%) 1 (2%) 1 (2%) (50) (50) (50) (50) (50) 47 (94%) 48 (96%) 49 (98%) 48 (96%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 1 (2%) 3 (6%) 3 (6%) 3 (6%) 3 (6%) 1 (2%)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 **Time Report Requested:** 09:53:55 **First Dose M/F:** 03/14/07 / 03/15/07

Lab: BAT

1 (2%)	1 (2%)			
	1 (2%)			
10 (200/)				
18 (36%)	22 (45%)	20 (40%)	19 (38%)	
(50)	(50)	(50)	(50)	
3 (6%)	6 (12%)	1 (2%)	3 (6%)	
	(46)			
	10 (22%)		8 (17%)	
	(49)		(47)	
17 (34%)	18 (37%)		12 (26%)	
(50)	(46)		(47)	
	, ,	, ,	. ,	
	4 (9%)	4 (8%)	5 (11%)	
,	,	,		
	1 (2%)		` ,	
21 (42%)	34 (74%)	33 (69%)	36 (77%)	
	3 (6%) (43) 3 (7%) (50) 17 (34%) (50) 1 (2%) 6 (12%)	3 (6%) 6 (12%) (43) (46) 3 (7%) 10 (22%) (50) (49) 17 (34%) 18 (37%) (50) (46) 1 (2%) 6 (12%) 4 (9%)	3 (6%) 6 (12%) 1 (2%) (43) (46) (50) 3 (7%) 10 (22%) 13 (26%) (50) (49) (50) 17 (34%) 18 (37%) 19 (38%) (50) (46) (48) 1 (2%) 6 (12%) 4 (9%) 4 (8%)	3 (6%) 6 (12%) 1 (2%) 3 (6%) (43) (46) (50) (47) 3 (7%) 10 (22%) 13 (26%) 8 (17%) (50) (49) (50) (47) 17 (34%) 18 (37%) 19 (38%) 12 (26%) (50) (46) (48) (47) 1 (2%) 4 (9%) 4 (8%) 5 (11%) 1 (2%) 1 (2%)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Epididymis	(50)	(50)	(50)	(50)
Atrophy	1 (2%)			
Preputial Gland	(50)	(50)	(49)	(50)
Cyst	7 (14%)		3 (6%)	5 (10%)
Fibrosis	1 (2%)			
Inflammation	2 (4%)			1 (2%)
Prostate	(50)	(50)	(50)	(50)
Atrophy	1 (2%)	1 (2%)		
Fibrosis	1 (2%)	3 (6%)	2 (4%)	1 (2%)
Hyperplasia	3 (6%)	4 (8%)	7 (14%)	3 (6%)
Inflammation, Acute	1 (2%)	6 (12%)		6 (12%)
Inflammation, Chronic Active				1 (2%)
Necrosis	1 (2%)			

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

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

Indole-3-carbinol **CAS Number:** 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Harlan Sprague Dawley RATS MALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
Seminal Vesicle	(49)	(50)	(50)	(50)	
Hypoplasia			1 (2%)		
Inflammation, Acute				2 (4%)	
Testes	(49)	(50)	(50)	(50)	
Atrophy	30 (61%)	37 (74%)	35 (70%)	33 (66%)	
Pigmentation, Hemosiderin			1 (2%)		
Artery, Inflammation, Chronic Active	28 (57%)	34 (68%)	33 (66%)	33 (66%)	
Interstitial Cell, Hyperplasia	1 (2%)		1 (2%)	2 (4%)	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Hyperplasia	1 (2%)	2 (4%)	4 (8%)	3 (6%)	
Lymph Node	(4)	(8)	(8)	(6)	
Angiectasis	. ,	, ,	, ,	1 (17%)	
Bronchial, Hemorrhage		1 (13%)	1 (13%)		
Deep Cervical, Hemorrhage		1 (13%)			
Deep Cervical, Hyperplasia, Plasma Cell		1 (13%)			
Deep Cervical, Inflammation		1 (13%)			
Iliac, Infiltration Cellular, Histiocyte		, ,	1 (13%)		
Lumbar, Hemorrhage			2 (25%)		
Mediastinal, Ectasia		1 (13%)	1 (13%)		
Mediastinal, Hemorrhage	1 (25%)	2 (25%)	3 (38%)	1 (17%)	
Mediastinal, Hyperplasia, Lymphoid	,	1 (13%)	,	,	
Mediastinal, Infiltration Cellular, Lipocyte		,		1 (17%)	
Mediastinal, Infiltration Cellular, Histiocyte		1 (13%)		,	
Mediastinal, Pigmentation, Hemosiderin		,		1 (17%)	
Pancreatic, Hemorrhage		1 (13%)		1 (17%)	
Renal, Ectasia	2 (50%)	,		,	
Renal, Hemorrhage	1 (25%)	2 (25%)			
Renal, Pigmentation, Hemosiderin	,	,		1 (17%)	
Lymph Node, Mandibular	(50)	(50)	(49)	(50)	
Ectasia	· -/	1 (2%)	1 (2%)	1 (2%)	
Hemorrhage		,	1 (2%)	,	
Hyperplasia, Plasma Cell	1 (2%)		, ,		

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

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

larlan Sprague Dawley RATS MALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)	
Ectasia		1 (2%)			
Hemorrhage		1 (2%)			
Hyperplasia, Lymphoid	1 (2%)			1 (2%)	
Lymphatic, Ectasia			1 (2%)	5 (10%)	
Spleen	(50)	(50)	(50)	(50)	
Atrophy				1 (2%)	
Hematopoietic Cell Proliferation	28 (56%)	33 (66%)	28 (56%)	29 (58%)	
Inflammation	1 (2%)				
Necrosis			1 (2%)		
Thymus	(46)	(49)	(49)	(47)	
Atrophy	41 (89%)	41 (84%)	42 (86%)	41 (87%)	
Hemorrhage			1 (2%)		
Epithelial Cell, Hyperplasia	1 (2%)				
NTEGUMENTARY SYSTEM					
NTEGUMENTARY SYSTEM Mammary Gland	(50)	(50)	(50)	(50)	
	(50)	(50)	(50) 1 (2%)	(50)	
Mammary Gland	(50)	(50)		(50) 1 (2%)	
Mammary Gland Fibrosis	(50) (50)	(50) (50)			
Mammary Gland Fibrosis Inflammation			1 (2%)	1 (2%)	
Mammary Gland Fibrosis Inflammation Skin	(50)	(50)	1 (2%)	1 (2%) (50)	
Mammary Gland Fibrosis Inflammation Skin Cyst Epithelial Inclusion	(50) 5 (10%)	(50) 3 (6%) 2 (4%)	1 (2%)	1 (2%) (50) 2 (4%)	
Mammary Gland Fibrosis Inflammation Skin Cyst Epithelial Inclusion Inflammation	(50) 5 (10%)	(50) 3 (6%)	1 (2%)	1 (2%) (50) 2 (4%)	
Mammary Gland Fibrosis Inflammation Skin Cyst Epithelial Inclusion Inflammation Necrosis	(50) 5 (10%) 3 (6%)	(50) 3 (6%) 2 (4%)	1 (2%)	1 (2%) (50) 2 (4%)	
Mammary Gland Fibrosis Inflammation Skin Cyst Epithelial Inclusion Inflammation Necrosis Epidermis, Ulcer	(50) 5 (10%) 3 (6%)	(50) 3 (6%) 2 (4%)	1 (2%)	1 (2%) (50) 2 (4%) 2 (4%)	
Mammary Gland Fibrosis Inflammation Skin Cyst Epithelial Inclusion Inflammation Necrosis Epidermis, Ulcer Sebaceous Gland, Hyperplasia	(50) 5 (10%) 3 (6%)	(50) 3 (6%) 2 (4%)	1 (2%)	1 (2%) (50) 2 (4%) 2 (4%)	
Mammary Gland Fibrosis Inflammation Skin Cyst Epithelial Inclusion Inflammation Necrosis Epidermis, Ulcer Sebaceous Gland, Hyperplasia	(50) 5 (10%) 3 (6%) 1 (2%)	(50) 3 (6%) 2 (4%) 2 (4%)	1 (2%) (50) 2 (4%)	1 (2%) (50) 2 (4%) 2 (4%) 1 (2%)	

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

Test Type: CHRONIC
Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Harlan Sprague Dawley RATS MALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion				1 (2%)
Gliosis		2 (4%)		
Necrosis				2 (4%)
Spinal Cord	(0)	(2)	(1)	(0)
Degeneration		2 (100%)	1 (100%)	
RESPIRATORY SYSTEM				
Lung	(49)	(50)	(50)	(50)
Edema			1 (2%)	1 (2%)
Fibrosis				1 (2%)
Foreign Body		1 (2%)	1 (2%)	
Hemorrhage			1 (2%)	1 (2%)
Hemorrhage, Multifocal	3 (6%)	3 (6%)	7 (14%)	7 (14%)
Inflammation, Granulomatous			1 (2%)	
Inflammation, Chronic	17 (35%)	21 (42%)	24 (48%)	23 (46%)
Mineralization				1 (2%)
Necrosis	1 (2%)			
Alveolar Epithelium, Hyperplasia	1 (2%)		1 (2%)	1 (2%)
Alveolus, Infiltration Cellular, Histiocyte	19 (39%)	22 (44%)	19 (38%)	13 (26%)
Alveolus, Mineralization	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Nose	(50)	(50)	(50)	(50)
Foreign Body	4 (8%)	12 (24%)	11 (22%)	10 (20%)
Fungus	1 (2%)			
Inflammation	1 (2%)			
Inflammation, Chronic Active	11 (22%)	15 (30%)	16 (32%)	15 (30%)
Thrombosis		1 (2%)		
Respiratory Epithelium, Hyperplasia	2 (4%)	2 (4%)	4 (8%)	7 (14%)
Respiratory Epithelium, Metaplasia, Squamous			2 (4%)	
Trachea	(50)	(50)	(50)	(50)
Inflammation	1 (2%)	1 (2%)	1 (2%)	

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

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Harlan Sprague Dawley RATS MALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
SPECIAL SENSES SYSTEM					
Ear	(0)	(0)	(1)	(0)	
External Ear, Hyperplasia, Squamous			1 (100%)		
Eye	(50)	(50)	(49)	(49)	
Cataract				1 (2%)	
Anterior Chamber, Inflammation, Acute	2 (4%)	1 (2%)	4 (8%)	3 (6%)	
Cornea, Inflammation, Acute	20 (40%)	25 (50%)	17 (35%)	21 (43%)	
Retina, Fibrosis				1 (2%)	
Harderian Gland	(50)	(50)	(49)	(50)	
Angiectasis				1 (2%)	
Pigmentation, Porphyrin	1 (2%)				
Lacrimal Gland	(1)	(2)	(4)	(0)	
Degeneration	1 (100%)	2 (100%)	4 (100%)		
URINARY SYSTEM					
Kidney	(50)	(50)	(50)	(50)	
Cyst	,	,	,	1 (2%)	
Metaplasia, Osseous		1 (2%)		,	
Nephropathy	50 (100%)	49 (98%)	49 (98%)	50 (100%)	
Renal Tubule, Dilatation	, ,	, ,	1 (2%)	,	
Urinary Bladder	(50)	(50)	(50)	(50)	
Hemorrhage	, ,	, ,	, ,	1 (2%)	
Inflammation				1 (2%)	

^{***} END OF MALE ***

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

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

Experiment Number: 20006 - 03

Indole-3-carbinol
CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Harlan Sprague Dawley RATS FEMALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
Disposition Summary					
Animals Initially In Study	50	50	50	50	
Early Deaths					
Dosing Accident		1		1	
Moribund Sacrifice	24	22	23	11	
Natural Death	5	8	7	8	
Survivors					
Moribund Sacrifice		1	1		
Terminal Sacrifice	21	18	19	30	
Animals Examined Microscopically	50	50	50	50	
ALIMENTARY SYSTEM					
Esophagus	(50)	(50)	(50)	(50)	
Inflammation	(50)		(50)	(50)	
Perforation		2 (4%)		1 (20/)	
	(50)	(EO)	(50)	1 (2%)	
Intestine Large, Cecum Intestine Large, Colon	(50) (50)	(50)	(50) (50)	(48)	
<u> </u>	• •	(50)	, ,	(48)	
Intestine Large, Rectum	(50)	(50)	(50)	(50)	
Metaplasia	(40)	(47)	1 (2%)	(47)	
Intestine Small, Duodenum	(48)	(47)	(48)	(47)	
Lymphatic, Ectasia	(47)	(47)	16 (33%)	38 (81%)	
Intestine Small, Ileum	(47)	(47)	(48)	(47)	
Intestine Small, Jejunum	(47)	(46)	(48)	(48)	
Lymphatic, Ectasia	(50)	(50)	30 (63%)	47 (98%)	
Liver	(50)	(50)	(50)	(48)	
Angiectasis	1 (2%)	C (400/)	2 (4%)	3 (6%)	
Basophilic Focus	14 (28%)	6 (12%)	11 (22%)	14 (29%)	
Cholangiofibrosis	0 (400/)	1 (2%)	4 (00/)	40 (200()	
Clear Cell Focus	6 (12%)	7 (14%)	4 (8%)	18 (38%)	
Eosinophilic Focus		4 (8%)	5 (10%)	6 (13%)	
Hepatodiaphragmatic Nodule			3 (6%)	2 (4%)	
Inflammation, Chronic	F (400()	4 (00()	E (400()	1 (2%)	
Mixed Cell Focus	5 (10%)	1 (2%)	5 (10%)	4 (8%)	
Necrosis	1 (2%)	2 (4%)			

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

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Harlan Sprague Dawley RATS FEMALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
Pigmentation	1 (2%)				
Thrombosis		1 (2%)			
Bile Duct, Cyst	2 (4%)	1 (2%)	4 (8%)	4 (8%)	
Bile Duct, Cyst, Multiple	2 (4%)	1 (2%)	2 (4%)	2 (4%)	
Bile Duct, Hyperplasia	2 (4%)				
Centrilobular, Degeneration		1 (2%)			
Mesentery	(0)	(2)	(2)	(1)	
Artery, Inflammation, Chronic Active		1 (50%)			
Oral Mucosa	(50)	(50)	(50)	(50)	
Hyperplasia, Squamous			1 (2%)	2 (4%)	
Pancreas	(50)	(49)	(49)	(48)	
Acinus, Hyperplasia	1 (2%)	3 (6%)	, ,	1 (2%)	
Artery, Inflammation, Chronic Active	1 (2%)	4 (8%)	3 (6%)	6 (13%)	
Salivary Glands	(50)	(49)	(48)	(50)	
Inflammation	1 (2%)	, ,	, ,	, ,	
Stomach, Forestomach	(50)	(50)	(50)	(49)	
Hyperplasia	2 (4%)	5 (10%)	7 (14%)	3 (6%)	
Inflammation	1 (2%)	, ,	, ,	1 (2%)	
Pigmentation, Melanin		1 (2%)			
Ulcer	1 (2%)				
Stomach, Glandular	(50)	(49)	(50)	(49)	
Erosion			1 (2%)		
Ulcer	1 (2%)				
Epithelium, Hyperplasia	1 (2%)		1 (2%)		
Epithelium, Mineralization			1 (2%)		
Tongue	(1)	(1)	(0)	(1)	
Cyst				1 (100%)	
Erosion	1 (100%)				
Inflammation	, ,	1 (100%)			
Tooth	(0)	(1)	(0)	(0)	
CARDIOVASCULAR SYSTEM					
Blood Vessel Degeneration, Focal	(50)	(50)	(50) 1 (2%)	(50)	

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

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Lab: BAT

Harlan Sprague Dawley RATS FEMALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
Inflammation, Chronic Active	1 (2%)	3 (6%)	4 (8%)	7 (14%)	
Thrombosis	,	, ,	1 (2%)	,	
Heart	(50)	(50)	(50)	(49)	
Cardiomyopathy	24 (48%)	24 (48%)	24 (48%)	24 (49%)	
Atrium, Thrombosis	,	1 (2%)	,	,	
Epicardium, Inflammation	1 (2%)	3 (6%)		1 (2%)	
Pericardium, Inflammation	, ,	, ,	2 (4%)	,	
ENDOCRINE SYSTEM					
Adrenal Cortex	(50)	(50)	(50)	(48)	
Degeneration, Cystic	16 (32%)	12 (24%)	11 (22%)	15 (31%)	
Degeneration, Fatty	5 (10%)	3 (6%)		1 (2%)	
Hyperplasia	18 (36%)	11 (22%)	18 (36%)	15 (31%)	
Hypertrophy	1 (2%)				
Inflammation	, ,	1 (2%)		1 (2%)	
Necrosis			1 (2%)	1 (2%)	
Thrombosis		1 (2%)	1 (2%)		
Bilateral, Degeneration, Cystic	1 (2%)				
Adrenal Medulla	(50)	(50)	(50)	(48)	
Hyperplasia	15 (30%)	13 (26%)	11 (22%)	12 (25%)	
Islets, Pancreatic	(50)	(50)	(50)	(50)	
Parathyroid Gland	(47)	(49)	(46)	(49)	
Hyperplasia		2 (4%)			
Pituitary Gland	(50)	(50)	(50)	(49)	
Pars Distalis, Hyperplasia	19 (38%)	14 (28%)	18 (36%)	24 (49%)	
Thyroid Gland	(49)	(49)	(48)	(47)	
C-cell, Hyperplasia	7 (14%)	5 (10%)	6 (13%)	5 (11%)	
Follicular Cell, Hyperplasia	1 (2%)		1 (2%)	1 (2%)	
Follicular Cell, Hypertrophy	27 (55%)	23 (47%)	24 (50%)	30 (64%)	

GENERAL BODY SYSTEM

None

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

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Harlan Sprague Dawley RATS FEMALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
GENITAL SYSTEM					
Clitoral Gland	(50)	(50)	(50)	(50)	
Cyst	5 (10%)	2 (4%)	3 (6%)	4 (8%)	
Inflammation	1 (2%)			2 (4%)	
Ovary	(50)	(50)	(50)	(49)	
Angiectasis				1 (2%)	
Atrophy	40 (80%)	23 (46%)	37 (74%)	30 (61%)	
Cyst	17 (34%)	13 (26%)	16 (32%)	16 (33%)	
Inflammation, Acute			1 (2%)	1 (2%)	
Inflammation, Chronic			. ,	1 (2%)	
Inflammation, Chronic Active	1 (2%)	1 (2%)		1 (2%)	
Necrosis, Fibrinoid	, ,	, ,	1 (2%)	· ,	
Uterus	(50)	(50)	(50)	(50)	
Cyst	,	,	2 (4%)	,	
Dilatation	9 (18%)	9 (18%)	7 (14%)	5 (10%)	
Inflammation, Histiocytic, Focal	1 (2%)	,	,	,	
Inflammation, Acute	5 (10%)	12 (24%)	6 (12%)	9 (18%)	
Thrombosis	- ()	(,	1 (2%)	1 (2%)	
Endometrium, Hyperplasia, Cystic	29 (58%)	28 (56%)	29 (58%)	21 (42%)	
Endometrium, Metaplasia, Squamous	12 (24%)	18 (36%)	20 (40%)	11 (22%)	
Vagina	(2)	(1)	(0)	(2)	
HEMATOPOIETIC SYSTEM					
Bone Marrow	(50)	(50)	(50)	(50)	
Atrophy		1 (2%)	1 (2%)		
Hyperplasia	21 (42%)	20 (40%)	23 (46%)	17 (34%)	
Lymph Node	(7)	(6)	(4)	(3)	
Axillary, Hyperplasia, Lymphoid	, ,	. ,	, ,	1 (33%)	
Iliac, Hyperplasia, Lymphoid		1 (17%)		,	
Iliac, Infiltration Cellular, Histiocyte		(/		1 (33%)	
Inguinal, Hemorrhage		1 (17%)		()	
Inguinal, Hyperplasia, Lymphoid	1 (14%)	. (,	1 (25%)		
a - Number of animals examined microscopica	` ,	والمساهم الماليين والمساهم المرا			

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Harlan Sprague Dawley RATS FEMALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
Lumbar, Hemorrhage	2 (29%)	1 (17%)			
Lumbar, Hyperplasia, Lymphoid	1 (14%)	1 (17%)			
Lumbar, Infiltration Cellular, Histiocyte	, ,	1 (17%)	1 (25%)		
Mediastinal, Ectasia		, ,	1 (25%)		
Mediastinal, Hemorrhage	2 (29%)		1 (25%)		
Mediastinal, Infiltration Cellular, Histiocyte	1 (14%)		,		
Lymph Node, Mandibular	(50)	(49)	(49)	(50)	
Lymph Node, Mesenteric	(50)	(50)	(50)	(48)	
Hemorrhage	` ,	, ,	, ,	1 (2%)	
Pigmentation, Hemosiderin	1 (2%)			, ,	
Lymphatic, Ectasia	. ,		1 (2%)	15 (31%)	
Spleen	(50)	(50)	(50)	(48)	
Hematopoietic Cell Proliferation	36 (72%)	32 (64%)	40 (80%)	33 (69%)	
Thymus	(47)	(50)	(49)	(50)	
Atrophy	38 (81%)	31 (62%)	34 (69%)	38 (76%)	
Hemorrhage				1 (2%)	
Inflammation		1 (2%)	1 (2%)		
Epithelial Cell, Hyperplasia	1 (2%)	4 (8%)	3 (6%)		
INTEGUMENTARY SYSTEM					
Mammary Gland	(50)	(50)	(50)	(50)	
Galactocele	1 (2%)	,	,	, ,	
Hyperplasia	8 (16%)	3 (6%)	7 (14%)	7 (14%)	
Inflammation	1 (2%)	1 (2%)	,	,	
Inflammation, Chronic	1 (2%)	, ,			
Duct, Dilatation	1 (2%)				
Skin	(50)	(50)	(50)	(50)	
Cyst Epithelial Inclusion	,	1 (2%)	,	1 (2%)	
Fibrosis		, ,		1 (2%)	
MUSCULOSKELETAL SYSTEM					
Bone	(50)	(50)	(50)	(50)	
Fibrous Osteodystrophy	(/	1 (2%)	1 (2%)	()	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Harlan Sprague Dawley RATS FEMALE 0 mg/kg 75 mg/kg 150 mg/kg 300 mg/kg Skeletal Muscle (1) (0) (1) (1)
Degeneration 1 (100%)
NERVOUS SYSTEM
Brain (50) (50) (50) (50)
Gliosis 1 (2%)
Hemorrhage 1 (2%)
Inflammation 1 (2%)
Necrosis 1 (2%) 1 (2%)
Meninges, Pigmentation, Lipofuscin 1 (2%)
Peripheral Nerve (0) (2) (0) (0)
Spinal Cord (0) (1) (0) (0)
Hemorrhage 1 (100%)
Necrosis 1 (100%)
RESPIRATORY SYSTEM
Lung (50) (50) (50) (49)
Atelectasis 1 (2%)
Foreign Body 2 (4%)
Inflammation, Granulomatous 1 (2%)
Inflammation, Chronic 34 (68%) 30 (60%) 38 (76%) 35 (71%)
Alveolar Epithelium, Hyperplasia
Alveolar Epithelium, Metaplasia, Squamous 1 (2%)
Alveolus, Infiltration Cellular, Histiocyte 13 (26%) 16 (32%) 11 (22%) 9 (18%)
Bronchiole, Hyperplasia 1 (2%) 1 (2%)
Mediastinum, Inflammation 1 (2%)
Pleura, Inflammation, Chronic Active 1 (2%)
Nose (49) (50) (49) (50)
Angiectasis 1 (2%)
Foreign Body 3 (6%) 2 (4%) 3 (6%) 3 (6%)
Inflammation, Chronic Active 5 (10%) 4 (8%) 5 (10%) 6 (12%)
Glands, Olfactory Epithelium, Hyperplasia 1 (2%)
Olfactory Epithelium, Atrophy 2 (4%) 5 (10%)

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

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Indole-3-carbinol CAS Number: 700-06-1

Date Report Requested: 04/16/2013 Time Report Requested: 09:53:55 First Dose M/F: 03/14/07 / 03/15/07

Harlan Sprague Dawley RATS FEMALE	0 mg/kg	75 mg/kg	150 mg/kg	300 mg/kg	
Olfactory Epithelium, Degeneration	1 (2%)		1 (2%)		
Respiratory Epithelium, Hyperplasia			3 (6%)	2 (4%)	
Respiratory Epithelium, Metaplasia, Squamous			1 (2%)	1 (2%)	
Trachea	(50)	(50)	(50)	(50)	
Epithelium, Necrosis		1 (2%)			
SPECIAL SENSES SYSTEM					
Eye	(50)	(50)	(50)	(50)	
Cataract	1 (2%)				
Inflammation		1 (2%)	1 (2%)		
Harderian Gland	(50)	(50)	(50)	(50)	
Hyperplasia, Focal			1 (2%)		
Inflammation		1 (2%)			
URINARY SYSTEM					
Kidney	(50)	(50)	(50)	(48)	
Nephropathy	45 (90%)	41 (82%)	42 (84%)	43 (90%)	
Pelvis, Inflammation				1 (2%)	
Urinary Bladder	(49)	(50)	(50)	(50)	
Hyperplasia	, ,	, ,	1 (2%)		

^{***} END OF REPORT ***

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