

Experiment Number: 92004-01
Test Type: CHRONIC
Species/Strain: Rat/F 344/N

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Test Compound: NTP 91/92 diet study
CAS Number: DIET9192

Date Report Requested: 10/20/2014
Time Report Requested: 18:17:16
First Dose M/F: NA / NA
Lab: NIEHS

C Number:	C92004
Lock Date:	Not Entered.
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	NONE

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F 344/N Rat MALE	07M	91M	92M
Disposition Summary			
Animals Initially In Study	60	60	60
Early Deaths			
Moribund Sacrifice	1	1	
Natural Death	3	5	8
Survivors			
Moribund Sacrifice	21	16	15
Natural Death	12	6	7
Terminal Sacrifice	23	32	30
Animals Examined Microscopically	58	60	56
ALIMENTARY SYSTEM			
Liver	(57)	(60)	(56)
Hepatocellular Adenoma	3 (5%)	1 (2%)	
Hepatocellular Carcinoma	1 (2%)		
Mesentery	(8)	(4)	(5)
Lipoma	1 (13%)		
Pancreas	(56)	(59)	(52)
Salivary Glands	(0)	(0)	(1)
Stomach, Forestomach	(4)	(0)	(0)
Stomach, Glandular	(1)	(0)	(0)
Tongue	(1)	(0)	(0)
Squamous Cell Papilloma	1 (100%)		
CARDIOVASCULAR SYSTEM			
Heart	(57)	(60)	(56)
Schwannoma Malignant	2 (4%)	2 (3%)	
ENDOCRINE SYSTEM			

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Adrenal Cortex	(56)	(60)	(56)
Adenoma	1 (2%)		
Adrenal Medulla	(56)	(60)	(56)
Bilateral, Pheochromocytoma Benign	7 (13%)	2 (3%)	1 (2%)
Pheochromocytoma Benign	10 (18%)	10 (17%)	6 (11%)
Pheochromocytoma Malignant	1 (2%)		
Islets, Pancreatic	(56)	(59)	(52)
Adenoma	5 (9%)	6 (10%)	1 (2%)
Parathyroid Gland	(36)	(41)	(40)
Adenoma	1 (3%)		1 (3%)
Pituitary Gland	(55)	(58)	(56)
Pars Distalis, Adenoma	26 (47%)	25 (43%)	18 (32%)
Pars Distalis, Carcinoma			1 (2%)
Thyroid Gland	(51)	(58)	(56)
C Cell, Adenoma	5 (10%)	9 (16%)	1 (2%)
Cystadenoma	1 (2%)		
Follicular Cel, Adenoma		1 (2%)	1 (2%)
GENERAL BODY SYSTEM			
Peritoneum	(1)	(0)	(2)
GENITAL SYSTEM			
Penis	(1)	(0)	(0)
Preputial Gland	(5)	(3)	(3)
Adenoma	4 (80%)	3 (100%)	2 (67%)
Squamous Cell Papilloma			1 (33%)
Seminal Vesicle	(2)	(3)	(5)
Testes	(56)	(60)	(56)
Bilateral, Interstit Cell, Adenoma	36 (64%)	42 (70%)	37 (66%)

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Interstit Cell, Adenoma	12 (21%)	11 (18%)	14 (25%)
HEMATOPOIETIC SYSTEM			
Lymph Node	(1)	(1)	(2)
Lymph Node, Mandibular	(2)	(0)	(1)
Lymph Node, Mesenteric	(56)	(57)	(54)
Spleen	(57)	(59)	(56)
Fibroma			1 (2%)
Fibrous Histiocytoma			1 (2%)
Osteosarcoma	1 (2%)		
Thymus	(30)	(46)	(38)
Thymoma Benign	2 (7%)		
INTEGUMENTARY SYSTEM			
Mammary Gland	(5)	(1)	(3)
Adenocarcinoma	1 (20%)		
Adenoma	1 (20%)		
Carcinoma	1 (20%)		
Fibroadenoma	2 (40%)	1 (100%)	2 (67%)
Inguinal, Fibroadenoma			1 (33%)
Skin	(10)	(9)	(3)
Basal Cell Carcinoma		2 (22%)	
Fibroma	2 (20%)	2 (22%)	
Keratoacanthoma	3 (30%)		2 (67%)
Melanoma Malignant	1 (10%)		
Squamous Cell Carcinoma	1 (10%)		
Subcut Tiss, Fibroma	2 (20%)	3 (33%)	1 (33%)
Trichoepithelioma		1 (11%)	

MUSCULOSKELETAL SYSTEM

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Lab: NIEHS

F 344/N Rat MALE	07M	91M	92M
Bone	(0)	(0)	(1)
Vertebra, Osteosarcoma			1 (100%)
NERVOUS SYSTEM			
Brain	(1)	(1)	(0)
Brain, Cerebellum	(1)	(0)	(1)
Brain, Cerebrum	(0)	(1)	(0)
RESPIRATORY SYSTEM			
Lung	(57)	(59)	(56)
Alveolar/Bronchiolar Adenoma	1 (2%)		1 (2%)
Alveolar/Bronchiolar Carcinoma	1 (2%)		1 (2%)
Osteosarcoma, Metastatic, Bone			1 (2%)
Squamous Cell Carcinoma	1 (2%)		1 (2%)
SPECIAL SENSES SYSTEM			
Zymbal's Gland	(0)	(1)	(1)
Adenoma		1 (100%)	
Carcinoma			1 (100%)
URINARY SYSTEM			
Kidney	(57)	(60)	(56)
Urinary Bladder	(55)	(59)	(52)
Papilloma			1 (2%)
SYSTEMIC LESIONS			
Multiple Organ	*(58)	*(60)	*(56)
Leukemia Mononuclear	32 (55%)	31 (52%)	27 (48%)
Mesothelioma Malignant	3 (5%)	3 (5%)	2 (4%)

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Lab: NIEHS

F 344/N Rat MALE	07M	91M	92M
Tumor Summary for MALE			
Total Animals with Primary Neoplasms (b)	57	60	55
Total Primary Neoplasms	172	156	127
Total Animals with Benign Neoplasms	56	57	55
Total Benign Neoplasms	126	118	92
Total Animals with Malignant Neoplasms	40	37	31
Total Malignant Neoplasms	46	38	35
Total Animals with Metastatic Neoplasms	2	2	3
Total Metastatic Neoplasms	2	2	3
Total Animals with Malignant Neoplasms Uncertain Primary Site			
Total Animals with Neoplasms Uncertain - Benign or Malignant			
Total Uncertain Neoplasms			

END OF MALE DATA

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Lab: NIEHS

F 344/N Rat FEMALE	07F	91F	92F
Disposition Summary			
Animals Initially In Study	60	60	60
Early Deaths			
Moribund Sacrifice	2	2	
Natural Death	6	3	6
Survivors			
Moribund Sacrifice	11	13	10
Natural Death	10	5	7
Terminal Sacrifice	31	37	37
Animals Examined Microscopically	56	60	59
ALIMENTARY SYSTEM			
Intestine Large, Cecum	(0)	(0)	(1)
Intestine Large, Colon	(1)	(0)	(0)
Liver	(56)	(56)	(59)
Hepatocellular Adenoma		1 (2%)	1 (2%)
Pheochromocytoma Malignant, Metastatic, Adrenal Medulla	1 (2%)		
Mesentery	(2)	(3)	(2)
Pancreas	(55)	(58)	(57)
Stomach, Forestomach	(0)	(1)	(0)
Stomach, Glandular	(0)	(1)	(0)
CARDIOVASCULAR SYSTEM			
Heart	(56)	(57)	(59)
ENDOCRINE SYSTEM			
Adrenal Cortex	(56)	(58)	(59)
Adrenal Medulla	(55)	(58)	(58)
Bilateral, Pheochromocytoma Malignant	1 (2%)		

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Pheochromocytoma Benign	3 (5%)	2 (3%)	1 (2%)
Islets, Pancreatic	(55)	(58)	(57)
Parathyroid Gland	(36)	(40)	(37)
Pituitary Gland	(55)	(57)	(57)
Pars Distalis, Adenoma	33 (60%)	31 (54%)	27 (47%)
Pars Intermed, Adenoma		1 (2%)	
Thyroid Gland	(54)	(55)	(56)
C Cell, Adenoma	4 (7%)	1 (2%)	4 (7%)
C Cell, Carcinoma			1 (2%)
Cystadenoma	1 (2%)		
Follicular Cel, Adenoma	1 (2%)		

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Clitoral Gland	(7)	(5)	(7)
Adenoma	3 (43%)	3 (60%)	4 (57%)
Carcinoma	3 (43%)		
Fibroma			1 (14%)
Squamous Cell Papilloma		1 (20%)	2 (29%)
Ovary	(55)	(57)	(59)
Granulosa Cell Tumor Benign	2 (4%)	1 (2%)	
Leiomyoma			1 (2%)
Tubulostromal Carcinoma	1 (2%)		
Uterus	(52)	(57)	(59)
Endometrium, Polyp Stromal	3 (6%)	5 (9%)	5 (8%)
Sarcoma Stromal		2 (4%)	

HEMATOPOIETIC SYSTEM

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Lymph Node, Mesenteric	(56)	(58)	(59)
Spleen	(56)	(58)	(59)
Carcinoma, Metastatic, Tissue Nos			1 (2%)
Hemangiosarcoma			1 (2%)
Thymus	(40)	(39)	(40)
Osteosarcoma, Metastatic, Bone	1 (3%)		
Thymoma Benign	1 (3%)		
INTEGUMENTARY SYSTEM			
Mammary Gland	(29)	(26)	(26)
Adenocarcinoma	2 (7%)		1 (4%)
Adenoma	1 (3%)	1 (4%)	
Carcinoma		1 (4%)	
Fibroadenoma	23 (79%)	20 (77%)	18 (69%)
Fibroadenoma, Multiple	4 (14%)	5 (19%)	4 (15%)
Inguinal, Fibroadenoma			2 (8%)
Skin	(4)	(2)	(3)
Carcinoma, Metastatic, Zymbal'S Gland	1 (25%)		
Subcut Tiss, Fibroma		1 (50%)	1 (33%)
Subcut Tiss, Fibrosarcoma			1 (33%)
Subcut Tiss, Lipoma	1 (25%)		
MUSCULOSKELETAL SYSTEM			
Bone	(1)	(0)	(0)
Rib, Osteosarcoma	1 (100%)		
NERVOUS SYSTEM			
Brain	(0)	(0)	(1)
RESPIRATORY SYSTEM			
Lung	(56)	(57)	(59)

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F 344/N Rat FEMALE	07F	91F	92F
Alveolar/Bronchiolar Adenoma		1 (2%)	
Carcinoma, Metastatic, Tissue Nos			1 (2%)
Carcinoma, Metastatic, Zymbal'S Gland	1 (2%)		
Osteosarcoma, Metastatic, Bone	1 (2%)		
SPECIAL SENSES SYSTEM			
Eye	(0)	(0)	(2)
Lacrimal Gland	(0)	(1)	(0)
Adenoma		1 (100%)	
Zymbal's Gland	(1)	(0)	(0)
Carcinoma	1 (100%)		
URINARY SYSTEM			
Kidney	(56)	(58)	(59)
Sarcoma			1 (2%)
Urinary Bladder	(54)	(56)	(57)
Adenoma	1 (2%)		
SYSTEMIC LESIONS			
Multiple Organ	*(56)	*(60)	*(59)
Histiocytic Sarcoma	1 (2%)		
Leukemia Granulocytic	1 (2%)		
Leukemia Mononuclear	15 (27%)	16 (27%)	13 (22%)

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F 344/N Rat FEMALE	07F	91F	92F
Tumor Summary for FEMALE			
Total Animals with Primary Neoplasms (b)	53	51	52
Total Primary Neoplasms	107	94	89
Total Animals with Benign Neoplasms	49	44	47
Total Benign Neoplasms	81	75	71
Total Animals with Malignant Neoplasms	22	19	16
Total Malignant Neoplasms	26	19	18
Total Animals with Metastatic Neoplasms	4		2
Total Metastatic Neoplasms	6		3
Total Animals with Malignant Neoplasms Uncertain Primary Site			
Total Animals with Neoplasms Uncertain - Benign or Malignant			
Total Uncertain Neoplasms			

**** END OF REPORT ****

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b - Primary tumors: all tumors except metastatic tumors

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