Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Lab:

**Date Report Requested:** 10/09/2020 **Time Report Requested:** 09:53:31 **First Dose M/F:** 07/03/12 / 07/02/12

Lab: BAT

**Custom Report with Litter-Based Statistics** 

NTP Study Number: C00058B

**Lock Date:** 10/02/2018

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups: Include ALL

Study Gender: Both

**TDMSE Version:** 2.5.0.0\_sfh

PWG Approval Date: NONE

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

**Date Report Requested:** 10/09/2020 **Time Report Requested:** 09:53:31 **First Dose M/F:** 07/03/12 / 07/02/12

Lab: BAT

### SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS IN THE ANALYSIS OF BLACK COHOSH

### **MALE RATS**

Organ

Adrenal Cortex

Adrenal Cortex: Bilateral

Bone Marrow Eye: Cornea Liver

Liver: Bile Duct

Lung

Lymph Node: Renal

Nose

Parathyroid Gland

Skin

Skin: Epidermis

Stomach, Forestomach: Epithelium

Thymus

### **FEMALE RATS**

### **Organ**

Adrenal Medulla: Bilateral

**Bone Marrow** 

Brain Heart Kidney

### Morphology

Hyperplasia Focal

Thrombus

Hyperplasia Focal

Hemorrhage

Inflammation Chronic

Basophilic Focus

Clear Cell Focus

Eosinophilic Focus

Necrosis

Hyperplasia

Inflammation Chronic

Mineral

Thrombus

Ectasia

Foreign Body

Inflammation

IIIIaiiiiiaiioii

Hyperplasia Diffuse

Inflammation Chronic

Ulcer

Hyperplasia

Hyperplasia

Atrophy

### Morphology

Hyperplasia Focal

Hemorrhage

Hypercellularity

Gliosis

Cardiomyopathy

Infarct

Inflammation Chronic

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

### SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS IN THE ANALYSIS OF BLACK COHOSH

Nephropathy Chronic Progressive

Polyarteritis Nodosa

Kidney: Renal Tubule

Liver

Mammary Gland

Thyroid Gland: C-Cell

Uterus

Basophilic Focus Clear Cell Focus Degeneration Cystic Eosinophilic Focus

Lung

Infiltration Cellular Histiocyte Inflammation Granulomatous

Squamous Metaplasia

Thrombus Hyperplasia

**Apoptosis** 

Nose Inflammation Chronic

Ovary Atrophy Cyst

Pituitary Gland: Pars Distalis

Spleen

Spleen: White Pulp

Hyperplasia

Pigment

Atrophy

Stomach, Forestomach Atrophy

Mineral

Thymus Ectopic Parathyroid Gland

Hyperplasia Dilation Hemorrhage

Squamous Metaplasia

Thrombus Ulcer

Uterus: Endometrium Hyperplasia Cystic

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Cortex Angiectasis					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	1/25 (4%)	
POLY-3 RATE (c)	0/38.56	0/37.00	0/38.80	1/37.21	
POLY-3 PERCENT (g)	0%	0%	0%	2.7%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	1/16 (6%)	
FIRST INCIDENCE				730 (T)	
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Cortex Degeneration Cystic					
LESION RATES					
OVERALL (a)	5/50 (10%)	4/50 (8%)	5/50 (10%)	4/50 (8%)	
LITTERS (b)	4/25 (16%)	4/25 (16%)	5/25 (20%)	4/25 (16%)	
POLY-3 RATE (c)	5/39.49	4/37.41	5/39.54	4/37.84	
POLY-3 PERCENT (g)	12.7%	10.7%	12.7%	10.6%	
TERMINAL (d)	1/15 (7%)	2/15 (13%)	2/21 (10%)	1/16 (6%)	
FIRST INCIDENCE	643	637	606	611	
STATISTICAL TESTS					
POLY 3	P=0.501N	P=0.534N	P=0.632N	P=0.527N	
POLY 1.5	P=0.492N	P=0.517N	P=0.630N	P=0.512N	
POLY 6	P=0.513N	P=0.556N	P=0.623N	P=0.546N	
RAO-SCOTT	P=0.490N	P=0.513N	P=0.611N	P=0.507N	
LITTER C-A/FISHERS	P=0.583N	P=0.649	P=0.500	P=0.649	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Cortex					
Extramedullary Hematopois	esis				
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	0/37.00	0/38.80	0/37.21	
POLY-3 PERCENT (g)	0%	0%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE					
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Cortex Hyperplasia Focal					
LESION RATES					
OVERALL (a)	7/50 (14%)	10/50 (20%)	9/50 (18%)	14/50 (28%)	
LITTERS (b)	7/25 (28%)	10/25 (40%)	9/25 (36%)	11/25 (44%)	
POLY-3 RATE (c)	7/40.04	10/39.65	9/39.00	14/39.37	
POLY-3 PERCENT (g)	17.5%	25.2%	23.1%	35.6%	
TERMINAL (d)	2/15 (13%)	4/15 (27%)	8/21 (38%)	8/16 (50%)	
FIRST INCIDENCE	598	447	679	434	
STATISTICAL TESTS					
POLY 3	P=0.051	P=0.282	P=0.366	P=0.052	
POLY 1.5	P=0.058	P=0.292	P=0.380	P=0.061	
POLY 6	P=0.042*	P=0.271	P=0.359	P=0.042*	
RAO-SCOTT	P=0.059	P=0.279	P=0.357	P=0.061	
LITTER C-A/FISHERS	P=0.227	P=0.276	P=0.381	P=0.189	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Cortex Hypertrophy Focal					
LESION RATES					
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	1/38.95	0/37.00	0/38.80	0/37.21	
POLY-3 PERCENT (g)	2.6%	0%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	618				
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Cortex Necrosis					
LESION RATES					
OVERALL (a)	2/50 (4%)	3/50 (6%)	4/50 (8%)	3/50 (6%)	
LITTERS (b)	2/25 (8%)	3/25 (12%)	4/25 (16%)	3/25 (12%)	
POLY-3 RATE (c)	2/39.23	3/38.06	4/40.47	3/39.11	
POLY-3 PERCENT (g)	5.1%	7.9%	9.9%	7.7%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	631	560	604	442	
STATISTICAL TESTS					
POLY 3	P=0.504	P=0.486	P=0.350	P=0.499	
POLY 1.5	P=0.507	P=0.493	P=0.344	P=0.502	
POLY 6	P=0.499	P=0.481	P=0.369	P=0.494	
RAO-SCOTT	P=0.487	P=0.453	P=0.329	P=0.467	
LITTER C-A/FISHERS	P=0.500	P=0.500	P=0.334	P=0.500	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Cortex Thrombus					
LESION RATES					
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	4/50 (8%)	
LITTERS (b)	0/25 (0%)	2/25 (8%)	0/25 (0%)	4/25 (16%)	
POLY-3 RATE (c)	0/38.56	2/37.55	0/38.80	4/38.60	
POLY-3 PERCENT (g)	0%	5.3%	0%	10.4%	
TERMINAL (d)	0/15 (0%)	1/15 (7%)	0/21 (0%)	1/16 (6%)	
FIRST INCIDENCE		560		442	
STATISTICAL TESTS					
POLY 3	P=0.032*	P=0.230	(e)	P=0.059	
POLY 1.5	P=0.032*	P=0.234	(e)	P=0.060	
POLY 6	P=0.031*	P=0.228	(e)	P=0.058	
RAO-SCOTT	P=0.065	P=0.281	(e)	P=0.103	
LITTER C-A/FISHERS	P=0.032*	P=0.245	(e)	P=0.055	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Cortex: Bilateral Degeneration Cystic					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	0/37.00	0/38.80	0/37.21	
POLY-3 PERCENT (g)	0%	0%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE					
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh

CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Cortex: Bilateral Hyperplasia Focal					
LESION RATES					
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	5/50 (10%)	
LITTERS (b)	1/25 (4%)	0/25 (0%)	1/25 (4%)	4/25 (16%)	
POLY-3 RATE (c)	1/38.88	0/37.00	1/38.80	5/38.50	
POLY-3 PERCENT (g)	2.6%	0%	2.6%	13%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	2/16 (13%)	
FIRST INCIDENCE	643		730 (T)	434	
STATISTICAL TESTS					
POLY 3	P=0.006**	P=0.510N	P=0.761	P=0.096	
POLY 1.5	P=0.006**	P=0.505N	P=0.761	P=0.100	
POLY 6	P=0.006**	P=0.516N	P=0.759N	P=0.092	
RAO-SCOTT	P=0.032*	P=0.584N	P=0.762	P=0.180	
LITTER C-A/FISHERS	P=0.023*	P=0.500N	P=0.755	P=0.174	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Medulla Hyperplasia Focal					
LESION RATES					
OVERALL (a)	14/50 (28%)	11/50 (22%)	16/50 (32%)	19/50 (38%)	
LITTERS (b)	13/25 (52%)	9/25 (36%)	13/25 (52%)	16/25 (64%)	
POLY-3 RATE (c)	14/40.06	11/38.62	16/41.77	19/40.03	
POLY-3 PERCENT (g)	35%	28.5%	38.3%	47.5%	
TERMINAL (d)	8/15 (53%)	6/15 (40%)	6/21 (29%)	11/16 (69%)	
FIRST INCIDENCE	573	611	547	502	
STATISTICAL TESTS					
POLY 3	P=0.067	P=0.351N	P=0.465	P=0.171	
POLY 1.5	P=0.073	P=0.337N	P=0.441	P=0.187	
POLY 6	P=0.060	P=0.360N	P=0.533	P=0.156	
RAO-SCOTT	P=0.070	P=0.337N	P=0.451	P=0.172	
LITTER C-A/FISHERS	P=0.089	P=0.197N	P=0.611	P=0.284	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Adrenal Medulla: Bilateral Hyperplasia Focal					
LESION RATES					
OVERALL (a)	5/50 (10%)	2/50 (4%)	3/50 (6%)	4/50 (8%)	
LITTERS (b)	4/25 (16%)	2/25 (8%)	3/25 (12%)	4/25 (16%)	
POLY-3 RATE (c)	5/38.61	2/37.17	3/39.25	4/37.21	
POLY-3 PERCENT (g)	13%	5.4%	7.6%	10.8%	
TERMINAL (d)	4/15 (27%)	1/15 (7%)	1/21 (5%)	4/16 (25%)	
FIRST INCIDENCE	718	687	664	730 (T)	
STATISTICAL TESTS					
POLY 3	P=0.534	P=0.228N	P=0.345N	P=0.524N	
POLY 1.5	P=0.540	P=0.223N	P=0.351N	P=0.510N	
POLY 6	P=0.526	P=0.233N	P=0.325N	P=0.539N	
RAO-SCOTT	P=0.517	P=0.240N	P=0.351N	P=0.510N	
LITTER C-A/FISHERS	P=0.437	P=0.334N	P=0.500N	P=0.649	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Blood Vessel Mineral					
LESION RATES					
OVERALL (a)	14/32 (44%)	15/33 (45%)	13/32 (41%)	11/33 (33%)	
LITTERS (b)	12/21 (57%)	12/23 (52%)	11/22 (50%)	10/23 (43%)	
POLY-3 RATE (c)	14/27.34	15/28.80	13/27.45	11/27.46	
POLY-3 PERCENT (g)	51.2%	52.1%	47.4%	40.1%	
TERMINAL (d)	0/8 (0%)	1/7 (14%)	3/13 (23%)	1/10 (10%)	
FIRST INCIDENCE	538	488	402	502	
STATISTICAL TESTS					
POLY 3	P=0.202N	P=0.581	P=0.494N	P=0.285N	
POLY 1.5	P=0.186N	P=0.577	P=0.482N	P=0.267N	
POLY 6	P=0.224N	P=0.580	P=0.505N	P=0.311N	
RAO-SCOTT	P=0.210N	P=0.570	P=0.487N	P=0.288N	
LITTER C-A/FISHERS	P=0.241N	P=0.489N	P=0.435N	P=0.273N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males						
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male			
Blood Vessel: Aorta Dilation							
LESION RATES							
OVERALL (a)	0/32 (0%)	2/33 (6%)	1/32 (3%)	1/33 (3%)			
LITTERS (b)	0/21 (0%)	2/23 (9%)	1/22 (5%)	1/23 (4%)			
POLY-3 RATE (c)	0/23.16	2/24.56	1/23.37	1/24.09			
POLY-3 PERCENT (g)	0%	8.1%	4.3%	4.2%			
TERMINAL (d)	0/8 (0%)	0/7 (0%)	0/13 (0%)	0/10 (0%)			
FIRST INCIDENCE		553	664	613			
STATISTICAL TESTS							
POLY 3	P=0.628	P=0.247	P=0.502	P=0.508			
POLY 1.5	P=0.629	P=0.247	P=0.501	P=0.509			
POLY 6	P=0.632	P=0.248	P=0.509	P=0.510			
RAO-SCOTT	P=0.599	P=0.254	P=0.469	P=0.475			
LITTER C-A/FISHERS	P=0.636	P=0.267	P=0.512	P=0.523			

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Bone Marrow Hemorrhage					
LESION RATES					
OVERALL (a)	10/50 (20%)	19/50 (38%)	15/50 (30%)	21/50 (42%)	
LITTERS (b)	8/25 (32%)	16/25 (64%)	13/25 (52%)	16/25 (64%)	
POLY-3 RATE (c)	10/41.15	19/43.46	15/42.59	21/44.25	
POLY-3 PERCENT (g)	24.3%	43.7%	35.2%	47.5%	
TERMINAL (d)	0/15 (0%)	4/15 (27%)	4/21 (19%)	3/16 (19%)	
FIRST INCIDENCE	562	488	402	442	
STATISTICAL TESTS					
POLY 3	P=0.062	P=0.044*	P=0.193	P=0.019*	
POLY 1.5	P=0.057	P=0.041*	P=0.189	P=0.017*	
POLY 6	P=0.071	P=0.053	P=0.210	P=0.023*	
RAO-SCOTT	P=0.065	P=0.047*	P=0.189	P=0.022*	
LITTER C-A/FISHERS	P=0.090	P=0.023*	P=0.126	P=0.023*	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Bone Marrow Hypercellularity						
LESION RATES						
OVERALL (a)	28/50 (56%)	27/50 (54%)	30/50 (60%)	29/50 (58%)		
LITTERS (b)	20/25 (80%)	21/25 (84%)	21/25 (84%)	20/25 (80%)		
POLY-3 RATE (c)	28/45.62	27/42.67	30/45.17	29/45.64		
POLY-3 PERCENT (g)	61.4%	63.3%	66.4%	63.5%		
TERMINAL (d)	5/15 (33%)	9/15 (60%)	11/21 (52%)	8/16 (50%)		
FIRST INCIDENCE	155	274	435	441		
STATISTICAL TESTS						
POLY 3	P=0.497	P=0.515	P=0.386	P=0.501		
POLY 1.5	P=0.474	P=0.579	P=0.393	P=0.507		
POLY 6	P=0.505	P=0.441	P=0.402	P=0.482		
RAO-SCOTT	P=0.495	P=0.508	P=0.388	P=0.497		
LITTER C-A/FISHERS	P=0.513N	P=0.500	P=0.500	P=0.637		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Bone Marrow Myelofibrosis						
LESION RATES						
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)		
LITTERS (b)	0/25 (0%)	2/25 (8%)	0/25 (0%)	0/25 (0%)		
POLY-3 RATE (c)	0/38.56	2/37.88	0/38.80	0/37.21		
POLY-3 PERCENT (g)	0%	5.3%	0%	0%		
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)		
FIRST INCIDENCE		553				
STATISTICAL TESTS						
POLY 3	P=0.376N	P=0.232	(e)	(e)		
POLY 1.5	P=0.372N	P=0.235	(e)	(e)		
POLY 6	P=0.379N	P=0.231	(e)	(e)		
RAO-SCOTT	P=0.452N	P=0.346	(e)	(e)		
LITTER C-A/FISHERS	P=0.368N	P=0.245	(e)	(e)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Bone					
Osteopetrosis					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	1/25 (4%)	
POLY-3 RATE (c)	0/38.56	0/37.00	2/39.05	1/37.44	
POLY-3 PERCENT (g)	0%	0%	5.1%	2.7%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	0/16 (0%)	
FIRST INCIDENCE			664	669	
STATISTICAL TESTS					
POLY 3	P=0.344	(e)	P=0.239	P=0.494	
POLY 1.5	P=0.348	(e)	P=0.238	P=0.498	
POLY 6	P=0.341	(e)	P=0.245	P=0.491	
RAO-SCOTT	P=0.386	(e)	P=0.306	P=0.531	
LITTER C-A/FISHERS	P=0.349	(e)	P=0.245	P=0.500	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Brain Gliosis					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/49 (4%)	1/50 (2%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	1/25 (4%)	
POLY-3 RATE (c)	0/38.56	0/37.00	2/38.82	1/37.75	
POLY-3 PERCENT (g)	0%	0%	5.2%	2.7%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	0/16 (0%)	
FIRST INCIDENCE			679	564	
STATISTICAL TESTS					
POLY 3	P=0.349	(e)	P=0.238	P=0.496	
POLY 1.5	P=0.351	(e)	P=0.236	P=0.498	
POLY 6	P=0.348	(e)	P=0.245	P=0.494	
RAO-SCOTT	P=0.392	(e)	P=0.310	P=0.538	
LITTER C-A/FISHERS	P=0.349	(e)	P=0.245	P=0.500	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Brain					
Hemorrhage					
LESION RATES					
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/49 (0%)	0/50 (0%)	
LITTERS (b)	1/25 (4%)	2/25 (8%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	1/38.76	2/37.91	0/38.62	0/37.21	
POLY-3 PERCENT (g)	2.6%	5.3%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	678	575			
STATISTICAL TESTS					
POLY 3	P=0.215N	P=0.492	P=0.501N	P=0.508N	
POLY 1.5	P=0.212N	P=0.496	P=0.502N	P=0.504N	
POLY 6	P=0.217N	P=0.490	P=0.496N	P=0.514N	
RAO-SCOTT	P=0.268N	P=0.517	P=0.548N	P=0.543N	
LITTER C-A/FISHERS	P=0.208N	P=0.500	P=0.500N	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males						
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male			
Brain Necrosis							
LESION RATES							
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/49 (4%)	2/50 (4%)			
LITTERS (b)	0/25 (0%)	1/25 (4%)	2/25 (8%)	2/25 (8%)			
POLY-3 RATE (c)	0/38.56	1/37.55	2/39.83	2/37.71			
POLY-3 PERCENT (g)	0%	2.7%	5%	5.3%			
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)			
FIRST INCIDENCE		559	445	598			
STATISTICAL TESTS							
POLY 3	P=0.223	P=0.495	P=0.244	P=0.231			
POLY 1.5	P=0.227	P=0.497	P=0.240	P=0.235			
POLY 6	P=0.219	P=0.493	P=0.253	P=0.229			
RAO-SCOTT	P=0.244	P=0.483	P=0.270	P=0.251			
LITTER C-A/FISHERS	P=0.225	P=0.500	P=0.245	P=0.245			

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males						
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male			
Epididymis Atrophy							
LESION RATES							
OVERALL (a)	2/50 (4%)	2/50 (4%)	0/50 (0%)	1/50 (2%)			
LITTERS (b)	2/25 (8%)	2/25 (8%)	0/25 (0%)	1/25 (4%)			
POLY-3 RATE (c)	2/38.71	2/37.62	0/38.80	1/37.28			
POLY-3 PERCENT (g)	5.2%	5.3%	0%	2.7%			
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)			
FIRST INCIDENCE	711	637		713			
STATISTICAL TESTS							
POLY 3	P=0.387N	P=0.685	P=0.236N	P=0.513N			
POLY 1.5	P=0.384N	P=0.689	P=0.236N	P=0.506N			
POLY 6	P=0.391N	P=0.683	P=0.231N	P=0.522N			
RAO-SCOTT	P=0.396N	P=0.661	P=0.260N	P=0.505N			
LITTER C-A/FISHERS	P=0.381N	P=0.695	P=0.245N	P=0.500N			

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males						
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male			
Epididymis Polyarteritis Nodosa							
LESION RATES							
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)			
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	0/25 (0%)			
POLY-3 RATE (c)	0/38.56	0/37.00	2/38.80	0/37.21			
POLY-3 PERCENT (g)	0%	0%	5.2%	0%			
TERMINAL (d)	0/15 (0%)	0/15 (0%)	2/21 (10%)	0/16 (0%)			
FIRST INCIDENCE			730 (T)				
STATISTICAL TESTS							
POLY 3	P=0.705N	(e)	P=0.238	(e)			
POLY 1.5	P=0.700N	(e)	P=0.238	(e)			
POLY 6	P=0.709N	(e)	P=0.243	(e)			
RAO-SCOTT	P=0.704N	(e)	P=0.356	(e)			
LITTER C-A/FISHERS	P=0.698N	(e)	P=0.245	(e)			

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males						
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male			
Eye: Cornea Inflammation Acute							
LESION RATES							
OVERALL (a)	5/50 (10%)	5/50 (10%)	2/50 (4%)	4/50 (8%)			
LITTERS (b)	4/25 (16%)	5/25 (20%)	2/25 (8%)	3/25 (12%)			
POLY-3 RATE (c)	5/39.50	5/38.76	2/39.34	4/38.38			
POLY-3 PERCENT (g)	12.7%	12.9%	5.1%	10.4%			
TERMINAL (d)	0/15 (0%)	1/15 (7%)	0/21 (0%)	0/16 (0%)			
FIRST INCIDENCE	621	553	618	598			
STATISTICAL TESTS							
POLY 3	P=0.449N	P=0.620	P=0.215N	P=0.518N			
POLY 1.5	P=0.442N	P=0.626	P=0.215N	P=0.507N			
POLY 6	P=0.455N	P=0.617	P=0.208N	P=0.528N			
RAO-SCOTT	P=0.460N	P=0.610	P=0.253N	P=0.520N			
LITTER C-A/FISHERS	P=0.351N	P=0.500	P=0.334N	P=0.500N			

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males						
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male			
Eye: Cornea Inflammation Chronic							
LESION RATES							
OVERALL (a)	3/50 (6%)	8/50 (16%)	11/50 (22%)	6/50 (12%)			
LITTERS (b)	3/25 (12%)	7/25 (28%)	11/25 (44%)	5/25 (20%)			
POLY-3 RATE (c)	3/38.71	8/37.50	11/39.74	6/38.13			
POLY-3 PERCENT (g)	7.8%	21.3%	27.7%	15.7%			
TERMINAL (d)	1/15 (7%)	5/15 (33%)	8/21 (38%)	2/16 (13%)			
FIRST INCIDENCE	704	666	604	569			
STATISTICAL TESTS							
POLY 3	P=0.470	P=0.083	P=0.019*	P=0.230			
POLY 1.5	P=0.478	P=0.091	P=0.019*	P=0.238			
POLY 6	P=0.466	P=0.076	P=0.021*	P=0.225			
RAO-SCOTT	P=0.465	P=0.088	P=0.025*	P=0.225			
LITTER C-A/FISHERS	P=0.566	P=0.145	P=0.013*	P=0.351			

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Eye: Retina Degeneration						
LESION RATES						
OVERALL (a)	3/50 (6%)	0/50 (0%)	1/50 (2%)	0/50 (0%)		
LITTERS (b)	3/25 (12%)	0/25 (0%)	1/25 (4%)	0/25 (0%)		
POLY-3 RATE (c)	3/38.74	0/37.00	1/38.80	0/37.21		
POLY-3 PERCENT (g)	7.7%	0%	2.6%	0%		
TERMINAL (d)	1/15 (7%)	0/15 (0%)	1/21 (5%)	0/16 (0%)		
FIRST INCIDENCE	704		730 (T)			
STATISTICAL TESTS						
POLY 3	P=0.155N	P=0.126N	P=0.303N	P=0.125N		
POLY 1.5	P=0.156N	P=0.122N	P=0.304N	P=0.121N		
POLY 6	P=0.153N	P=0.129N	P=0.296N	P=0.129N		
RAO-SCOTT	P=0.210N	P=0.179N	P=0.348N	P=0.178N		
LITTER C-A/FISHERS	P=0.158N	P=0.117N	P=0.305N	P=0.117N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Harderian Gland Atrophy						
LESION RATES						
OVERALL (a)	1/50 (2%)	0/50 (0%)	2/50 (4%)	1/50 (2%)		
LITTERS (b)	1/25 (4%)	0/25 (0%)	2/25 (8%)	1/25 (4%)		
POLY-3 RATE (c)	1/38.92	0/37.00	2/39.20	1/37.21		
POLY-3 PERCENT (g)	2.6%	0%	5.1%	2.7%		
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	1/16 (6%)		
FIRST INCIDENCE	631		616	730 (T)		
STATISTICAL TESTS						
POLY 3	P=0.544	P=0.510N	P=0.503	P=0.751		
POLY 1.5	P=0.549	P=0.505N	P=0.502	P=0.757		
POLY 6	P=0.538	P=0.516N	P=0.511	P=0.745		
RAO-SCOTT	P=0.526	P=0.485N	P=0.494	P=0.718		
LITTER C-A/FISHERS	P=0.552	P=0.500N	P=0.500	P=0.755		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Heart Cardiomyopathy						
LESION RATES						
OVERALL (a)	37/50 (74%)	40/50 (80%)	40/50 (80%)	37/50 (74%)		
LITTERS (b)	23/25 (92%)	23/25 (92%)	24/25 (96%)	23/25 (92%)		
POLY-3 RATE (c)	37/45.60	40/48.90	40/48.78	37/46.56		
POLY-3 PERCENT (g)	81.2%	81.8%	82%	79.5%		
TERMINAL (d)	12/15 (80%)	10/15 (67%)	14/21 (67%)	11/16 (69%)		
FIRST INCIDENCE	538	274	402	434		
STATISTICAL TESTS						
POLY 3	P=0.448N	P=0.576	P=0.566	P=0.525N		
POLY 1.5	P=0.410N	P=0.493	P=0.484	P=0.524N		
POLY 6	P=0.511N	P=0.565N	P=0.568N	P=0.545N		
RAO-SCOTT	P=0.450N	P=0.570	P=0.561	P=0.520N		
LITTER C-A/FISHERS	P=0.622N	P=0.695	P=0.500	P=0.695		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Heart Mineral					
LESION RATES					
OVERALL (a)	4/50 (8%)	8/50 (16%)	1/50 (2%)	3/50 (6%)	
LITTERS (b)	4/25 (16%)	8/25 (32%)	1/25 (4%)	3/25 (12%)	
POLY-3 RATE (c)	4/39.55	8/40.79	1/39.20	3/38.72	
POLY-3 PERCENT (g)	10.1%	19.6%	2.6%	7.8%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	562	488	618	554	
STATISTICAL TESTS					
POLY 3	P=0.201N	P=0.187	P=0.179N	P=0.512N	
POLY 1.5	P=0.197N	P=0.183	P=0.179N	P=0.504N	
POLY 6	P=0.205N	P=0.200	P=0.174N	P=0.518N	
RAO-SCOTT	P=0.215N	P=0.194	P=0.180N	P=0.492N	
LITTER C-A/FISHERS	P=0.188N	P=0.160	P=0.174N	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Heart Polyarteritis Nodosa						
LESION RATES						
OVERALL (a)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)		
LITTERS (b)	2/25 (8%)	1/25 (4%)	0/25 (0%)	0/25 (0%)		
POLY-3 RATE (c)	2/38.56	1/37.00	0/38.80	0/37.21		
POLY-3 PERCENT (g)	5.2%	2.7%	0%	0%		
TERMINAL (d)	2/15 (13%)	1/15 (7%)	0/21 (0%)	0/16 (0%)		
FIRST INCIDENCE	730 (T)	730 (T)				
STATISTICAL TESTS						
POLY 3	P=0.168N	P=0.514N	P=0.235N	P=0.244N		
POLY 1.5	P=0.168N	P=0.507N	P=0.236N	P=0.240N		
POLY 6	P=0.168N	P=0.522N	P=0.229N	P=0.248N		
RAO-SCOTT	P=0.228N	P=0.533N	P=0.304N	P=0.308N		
LITTER C-A/FISHERS	P=0.167N	P=0.500N	P=0.245N	P=0.245N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Heart: Atrium Thrombus						
LESION RATES						
OVERALL (a)	2/50 (4%)	1/50 (2%)	4/50 (8%)	3/50 (6%)		
LITTERS (b)	2/25 (8%)	1/25 (4%)	4/25 (16%)	3/25 (12%)		
POLY-3 RATE (c)	2/38.84	1/37.46	4/39.91	3/38.91		
POLY-3 PERCENT (g)	5.2%	2.7%	10%	7.7%		
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)		
FIRST INCIDENCE	676	596	589	449		
STATISTICAL TESTS						
POLY 3	P=0.344	P=0.513N	P=0.348	P=0.501		
POLY 1.5	P=0.342	P=0.506N	P=0.343	P=0.503		
POLY 6	P=0.347	P=0.519N	P=0.366	P=0.500		
RAO-SCOTT	P=0.339	P=0.484N	P=0.343	P=0.482		
LITTER C-A/FISHERS	P=0.329	P=0.500N	P=0.334	P=0.500		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Heart: Perivascular Infiltration Cellular Lympho	cyte				
LESION RATES					
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	1/25 (4%)	2/25 (8%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	1/37.24	2/39.23	0/37.21	
POLY-3 PERCENT (g)	0%	2.7%	5.1%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	0/16 (0%)	
FIRST INCIDENCE		666	606		
STATISTICAL TESTS					
POLY 3	P=0.526N	P=0.493	P=0.240	(e)	
POLY 1.5	P=0.520N	P=0.496	P=0.239	(e)	
POLY 6	P=0.534N	P=0.490	P=0.247	(e)	
RAO-SCOTT	P=0.533N	P=0.531	P=0.309	(e)	
LITTER C-A/FISHERS	P=0.515N	P=0.500	P=0.245	(e)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Intestine Large, Cecum Erosion						
LESION RATES						
OVERALL (a)	3/50 (6%)	4/49 (8%)	0/50 (0%)	2/49 (4%)		
LITTERS (b)	3/25 (12%)	3/25 (12%)	0/25 (0%)	2/25 (8%)		
POLY-3 RATE (c)	3/39.15	4/37.94	0/38.80	2/36.94		
POLY-3 PERCENT (g)	7.7%	10.5%	0%	5.4%		
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/15 (0%)		
FIRST INCIDENCE	631	560		613		
STATISTICAL TESTS						
POLY 3	P=0.347N	P=0.483	P=0.119N	P=0.527N		
POLY 1.5	P=0.342N	P=0.486	P=0.119N	P=0.517N		
POLY 6	P=0.353N	P=0.485	P=0.117N	P=0.538N		
RAO-SCOTT	P=0.386N	P=0.504	P=0.184N	P=0.541N		
LITTER C-A/FISHERS	P=0.413N	P=0.666	P=0.117N	P=0.500N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Intestine Large, Cecum Inflammation Chronic					
LESION RATES					-
OVERALL (a)	3/50 (6%)	3/49 (6%)	0/50 (0%)	4/49 (8%)	
LITTERS (b)	3/25 (12%)	3/25 (12%)	0/25 (0%)	4/25 (16%)	
POLY-3 RATE (c)	3/39.33	3/37.27	0/38.80	4/38.17	
POLY-3 PERCENT (g)	7.6%	8.1%	0%	10.5%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/15 (0%)	
FIRST INCIDENCE	631	618		502	
STATISTICAL TESTS					
POLY 3	P=0.368	P=0.639	P=0.120N	P=0.484	
POLY 1.5	P=0.370	P=0.645	P=0.119N	P=0.489	
POLY 6	P=0.366	P=0.634	P=0.118N	P=0.479	
RAO-SCOTT	P=0.374	P=0.617	P=0.136N	P=0.476	
LITTER C-A/FISHERS	P=0.372	P=0.666	P=0.117N	P=0.500	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Intestine Large, Cecum Mineral					
LESION RATES					
OVERALL (a)	3/50 (6%)	4/49 (8%)	1/50 (2%)	5/49 (10%)	
LITTERS (b)	3/25 (12%)	3/25 (12%)	1/25 (4%)	5/25 (20%)	
POLY-3 RATE (c)	3/39.01	4/37.71	1/39.62	5/38.59	
POLY-3 PERCENT (g)	7.7%	10.6%	2.5%	13%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/15 (0%)	
FIRST INCIDENCE	672	611	413	502	
STATISTICAL TESTS					
POLY 3	P=0.288	P=0.481	P=0.299N	P=0.348	
POLY 1.5	P=0.289	P=0.485	P=0.301N	P=0.349	
POLY 6	P=0.289	P=0.484	P=0.291N	P=0.351	
RAO-SCOTT	P=0.315	P=0.483	P=0.323N	P=0.367	
LITTER C-A/FISHERS	P=0.215	P=0.666	P=0.305N	P=0.351	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Intestine Large, Cecum Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	3/50 (6%)	8/49 (16%)	1/50 (2%)	4/49 (8%)	
LITTERS (b)	3/25 (12%)	7/25 (28%)	1/25 (4%)	4/25 (16%)	
POLY-3 RATE (c)	3/39.06	8/38.60	1/39.23	4/37.91	
POLY-3 PERCENT (g)	7.7%	20.7%	2.6%	10.6%	
TERMINAL (d)	1/15 (7%)	2/15 (13%)	0/21 (0%)	0/15 (0%)	
FIRST INCIDENCE	646	559	606	554	
STATISTICAL TESTS					
POLY 3	P=0.441N	P=0.090	P=0.302N	P=0.484	
POLY 1.5	P=0.437N	P=0.091	P=0.304N	P=0.488	
POLY 6	P=0.442N	P=0.092	P=0.295N	P=0.483	
RAO-SCOTT	P=0.448N	P=0.117	P=0.317N	P=0.481	
LITTER C-A/FISHERS	P=0.498N	P=0.145	P=0.305N	P=0.500	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Intestine Large, Cecum Ulcer						
LESION RATES						
OVERALL (a)	2/50 (4%)	1/49 (2%)	0/50 (0%)	1/49 (2%)		
LITTERS (b)	2/25 (8%)	1/25 (4%)	0/25 (0%)	1/25 (4%)		
POLY-3 RATE (c)	2/38.82	1/36.54	0/38.80	1/36.77		
POLY-3 PERCENT (g)	5.2%	2.7%	0%	2.7%		
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/15 (0%)		
FIRST INCIDENCE	672	644		554		
STATISTICAL TESTS						
POLY 3	P=0.504N	P=0.521N	P=0.236N	P=0.519N		
POLY 1.5	P=0.504N	P=0.514N	P=0.237N	P=0.512N		
POLY 6	P=0.506N	P=0.527N	P=0.232N	P=0.527N		
RAO-SCOTT	P=0.497N	P=0.505N	P=0.249N	P=0.504N		
LITTER C-A/FISHERS	P=0.500N	P=0.500N	P=0.245N	P=0.500N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Intestine Large, Colon Parasite Metazoan					
LESION RATES					
OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	1/50 (2%)	
LITTERS (b)	1/25 (4%)	2/25 (8%)	1/25 (4%)	1/25 (4%)	
POLY-3 RATE (c)	1/38.84	2/37.08	1/39.44	1/37.21	
POLY-3 PERCENT (g)	2.6%	5.4%	2.5%	2.7%	
TERMINAL (d)	0/15 (0%)	1/15 (7%)	0/21 (0%)	1/16 (6%)	
FIRST INCIDENCE	654	711	521	730 (T)	
STATISTICAL TESTS					
POLY 3	P=0.546N	P=0.484	P=0.758N	P=0.752	
POLY 1.5	P=0.539N	P=0.492	P=0.759N	P=0.757	
POLY 6	P=0.554N	P=0.475	P=0.753N	P=0.746	
RAO-SCOTT	P=0.521N	P=0.457	P=0.723N	P=0.711	
LITTER C-A/FISHERS	P=0.535N	P=0.500	P=0.755	P=0.755	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Intestine Large, Colon Polyarteritis Nodosa						
LESION RATES						
OVERALL (a)	1/50 (2%)	2/50 (4%)	2/50 (4%)	3/50 (6%)		
LITTERS (b)	1/25 (4%)	2/25 (8%)	2/25 (8%)	3/25 (12%)		
POLY-3 RATE (c)	1/38.56	2/37.00	2/39.47	3/38.38		
POLY-3 PERCENT (g)	2.6%	5.4%	5.1%	7.8%		
TERMINAL (d)	1/15 (7%)	2/15 (13%)	0/21 (0%)	0/16 (0%)		
FIRST INCIDENCE	730 (T)	730 (T)	595	598		
STATISTICAL TESTS						
POLY 3	P=0.271	P=0.486	P=0.508	P=0.302		
POLY 1.5	P=0.272	P=0.493	P=0.504	P=0.305		
POLY 6	P=0.274	P=0.478	P=0.522	P=0.303		
RAO-SCOTT	P=0.265	P=0.448	P=0.476	P=0.284		
LITTER C-A/FISHERS	P=0.264	P=0.500	P=0.500	P=0.305		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Intestine Large, Colon: Lym Hyperplasia	nphoid Tissue				
LESION RATES					
OVERALL (a)	1/50 (2%)	4/50 (8%)	2/50 (4%)	0/50 (0%)	
LITTERS (b)	1/25 (4%)	3/25 (12%)	2/25 (8%)	0/25 (0%)	
POLY-3 RATE (c)	1/38.56	4/37.00	2/38.80	0/37.21	
POLY-3 PERCENT (g)	2.6%	10.8%	5.2%	0%	
TERMINAL (d)	1/15 (7%)	4/15 (27%)	2/21 (10%)	0/16 (0%)	
FIRST INCIDENCE	730 (T)	730 (T)	730 (T)		
STATISTICAL TESTS					
POLY 3	P=0.143N	P=0.164	P=0.502	P=0.507N	
POLY 1.5	P=0.139N	P=0.171	P=0.501	P=0.503N	
POLY 6	P=0.148N	P=0.156	P=0.511	P=0.511N	
RAO-SCOTT	P=0.208N	P=0.241	P=0.544	P=0.569N	
LITTER C-A/FISHERS	P=0.179N	P=0.305	P=0.500	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Intestine Large, Rectum Parasite Metazoan					
LESION RATES					
OVERALL (a)	0/50 (0%)	3/50 (6%)	1/50 (2%)	2/50 (4%)	
LITTERS (b)	0/25 (0%)	3/25 (12%)	1/25 (4%)	2/25 (8%)	
POLY-3 RATE (c)	0/38.56	3/37.17	1/38.80	2/37.21	
POLY-3 PERCENT (g)	0%	8.1%	2.6%	5.4%	
TERMINAL (d)	0/15 (0%)	2/15 (13%)	1/21 (5%)	2/16 (13%)	
FIRST INCIDENCE		687	730 (T)	730 (T)	
STATISTICAL TESTS					
POLY 3	P=0.420	P=0.111	P=0.501	P=0.228	
POLY 1.5	P=0.429	P=0.115	P=0.501	P=0.233	
POLY 6	P=0.410	P=0.107	P=0.506	P=0.223	
RAO-SCOTT	P=0.433	P=0.143	P=0.504	P=0.255	
LITTER C-A/FISHERS	P=0.436	P=0.117	P=0.500	P=0.245	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Intestine Large, Rectum Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	
LITTERS (b)	2/25 (8%)	2/25 (8%)	1/25 (4%)	0/25 (0%)	
POLY-3 RATE (c)	2/38.56	2/37.07	1/39.22	0/37.21	
POLY-3 PERCENT (g)	5.2%	5.4%	2.6%	0%	
TERMINAL (d)	2/15 (13%)	1/15 (7%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	730 (T)	713	609		
STATISTICAL TESTS					
POLY 3	P=0.145N	P=0.681	P=0.494N	P=0.244N	
POLY 1.5	P=0.143N	P=0.687	P=0.497N	P=0.240N	
POLY 6	P=0.147N	P=0.676	P=0.483N	P=0.248N	
RAO-SCOTT	P=0.169N	P=0.657	P=0.494N	P=0.264N	
LITTER C-A/FISHERS	P=0.138N	P=0.695	P=0.500N	P=0.245N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Intestine Small, Duodenum Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	2/50 (4%)	0/50 (0%)	3/49 (6%)	1/49 (2%)	
LITTERS (b)	2/25 (8%)	0/25 (0%)	3/25 (12%)	1/25 (4%)	
POLY-3 RATE (c)	2/38.61	0/37.00	3/39.58	1/36.98	
POLY-3 PERCENT (g)	5.2%	0%	7.6%	2.7%	
TERMINAL (d)	1/15 (7%)	0/15 (0%)	0/21 (0%)	1/16 (6%)	
FIRST INCIDENCE	718		604	730 (T)	
STATISTICAL TESTS					
POLY 3	P=0.583N	P=0.246N	P=0.511	P=0.515N	
POLY 1.5	P=0.582N	P=0.242N	P=0.503	P=0.510N	
POLY 6	P=0.586N	P=0.250N	P=0.532	P=0.522N	
RAO-SCOTT	P=0.576N	P=0.267N	P=0.513	P=0.510N	
LITTER C-A/FISHERS	P=0.579N	P=0.245N	P=0.500	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

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Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Intestine Small, Jejunum Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	2/50 (4%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	
LITTERS (b)	2/25 (8%)	1/25 (4%)	0/25 (0%)	1/25 (4%)	
POLY-3 RATE (c)	2/38.56	1/37.55	0/38.80	1/37.53	
POLY-3 PERCENT (g)	5.2%	2.7%	0%	2.7%	
TERMINAL (d)	2/15 (13%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	730 (T)	559		643	
STATISTICAL TESTS					
POLY 3	P=0.501N	P=0.509N	P=0.235N	P=0.510N	
POLY 1.5	P=0.500N	P=0.505N	P=0.236N	P=0.504N	
POLY 6	P=0.502N	P=0.513N	P=0.229N	P=0.514N	
RAO-SCOTT	P=0.494N	P=0.497N	P=0.251N	P=0.497N	
LITTER C-A/FISHERS	P=0.500N	P=0.500N	P=0.245N	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Islets, Pancreatic Hyperplasia					
LESION RATES					
OVERALL (a)	2/50 (4%)	3/50 (6%)	1/50 (2%)	3/50 (6%)	
LITTERS (b)	2/25 (8%)	3/25 (12%)	1/25 (4%)	2/25 (8%)	
POLY-3 RATE (c)	2/38.83	3/37.56	1/38.80	3/37.56	
POLY-3 PERCENT (g)	5.2%	8%	2.6%	8%	
TERMINAL (d)	0/15 (0%)	1/15 (7%)	1/21 (5%)	2/16 (13%)	
FIRST INCIDENCE	672	653	730 (T)	633	
STATISTICAL TESTS					
POLY 3	P=0.463	P=0.485	P=0.500N	P=0.485	
POLY 1.5	P=0.470	P=0.492	P=0.500N	P=0.494	
POLY 6	P=0.454	P=0.479	P=0.495N	P=0.475	
RAO-SCOTT	P=0.472	P=0.494	P=0.513N	P=0.494	
LITTER C-A/FISHERS	P=0.538N	P=0.500	P=0.500N	P=0.695	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Kidney Calculus Micro Observatior	n Only				
LESION RATES					
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	1/25 (4%)	2/25 (8%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	1/38.95	2/37.31	0/38.80	0/37.21	
POLY-3 PERCENT (g)	2.6%	5.4%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	618	669			
STATISTICAL TESTS					
POLY 3	P=0.215N	P=0.485	P=0.501N	P=0.509N	
POLY 1.5	P=0.212N	P=0.492	P=0.500N	P=0.504N	
POLY 6	P=0.219N	P=0.478	P=0.498N	P=0.515N	
RAO-SCOTT	P=0.271N	P=0.513	P=0.551N	P=0.550N	
LITTER C-A/FISHERS	P=0.208N	P=0.500	P=0.500N	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Kidney Hyperplasia Oncocytic					
LESION RATES					
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	2/25 (8%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	2/38.65	0/37.00	0/38.80	0/37.21	
POLY-3 PERCENT (g)	5.2%	0%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	718				
STATISTICAL TESTS					
POLY 3	P=0.235N	P=0.246N	P=0.235N	P=0.245N	
POLY 1.5	P=0.238N	P=0.242N	P=0.236N	P=0.240N	
POLY 6	P=0.231N	P=0.251N	P=0.230N	P=0.250N	
RAO-SCOTT	P=0.337N	P=0.350N	P=0.347N	P=0.350N	
LITTER C-A/FISHERS	P=0.241N	P=0.245N	P=0.245N	P=0.245N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males	
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male
Kidney Infarct				
LESION RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (c)	1/38.88	0/37.00	0/38.80	1/37.53
POLY-3 PERCENT (g)	2.6%	0%	0%	2.7%
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)
FIRST INCIDENCE	643			643
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Kidney Inflammation Chronic					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	1/25 (4%)	
POLY-3 RATE (c)	0/38.56	0/37.00	0/38.80	1/37.28	
POLY-3 PERCENT (g)	0%	0%	0%	2.7%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE				713	
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Kidney Nephropathy Chronic Progr	ressive				
LESION RATES					
OVERALL (a)	50/50 (100%)	50/50 (100%)	50/50 (100%)	50/50 (100%)	
LITTERS (b)	25/25 (100%)	25/25 (100%)	25/25 (100%)	25/25 (100%)	
POLY-3 RATE (c)	50/50.00	50/50.00	50/50.00	50/50.00	
POLY-3 PERCENT (g)	100%	100%	100%	100%	
TERMINAL (d)	15/15 (100%)	15/15 (100%)	21/21 (100%)	16/16 (100%)	
FIRST INCIDENCE	155	274	402	434	
STATISTICAL TESTS					
POLY 3	(e)	(e)	(e)	(e)	
POLY 1.5	(e)	(e)	(e)	(e)	
POLY 6	(e)	(e)	(e)	(e)	
RAO-SCOTT	(e)	(e)	(e)	(e)	
LITTER C-A/FISHERS	(e)	(e)	(e)	(e)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Kidney Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	1/25 (4%)	2/25 (8%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	1/38.56	2/37.79	0/38.80	0/37.21	
POLY-3 PERCENT (g)	2.6%	5.3%	0%	0%	
TERMINAL (d)	1/15 (7%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	730 (T)	559			
STATISTICAL TESTS					
POLY 3	P=0.213N	P=0.493	P=0.499N	P=0.507N	
POLY 1.5	P=0.211N	P=0.496	P=0.499N	P=0.503N	
POLY 6	P=0.215N	P=0.492	P=0.494N	P=0.511N	
RAO-SCOTT	P=0.274N	P=0.522	P=0.552N	P=0.550N	
LITTER C-A/FISHERS	P=0.208N	P=0.500	P=0.500N	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Kidney: Pelvis Dilation					
LESION RATES					
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	1/39.45	0/37.00	0/38.80	0/37.21	
POLY-3 PERCENT (g)	2.5%	0%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	354				
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Kidney: Pelvis Inflammation Chronic					
LESION RATES					
OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	
LITTERS (b)	2/25 (8%)	2/25 (8%)	1/25 (4%)	0/25 (0%)	
POLY-3 RATE (c)	2/39.15	2/37.31	1/38.80	0/37.21	
POLY-3 PERCENT (g)	5.1%	5.4%	2.6%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	0/16 (0%)	
FIRST INCIDENCE	618	669	730 (T)		
STATISTICAL TESTS					
POLY 3	P=0.147N	P=0.678	P=0.503N	P=0.248N	
POLY 1.5	P=0.144N	P=0.685	P=0.501N	P=0.242N	
POLY 6	P=0.150N	P=0.669	P=0.500N	P=0.256N	
RAO-SCOTT	P=0.170N	P=0.655	P=0.502N	P=0.268N	
LITTER C-A/FISHERS	P=0.138N	P=0.695	P=0.500N	P=0.245N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Kidney: Renal Tubule Accumulation, Hyaline Drop	olet				
LESION RATES					
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	
LITTERS (b)	2/25 (8%)	0/25 (0%)	0/25 (0%)	2/25 (8%)	
POLY-3 RATE (c)	2/39.22	0/37.00	0/38.80	2/37.88	
POLY-3 PERCENT (g)	5.1%	0%	0%	5.3%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	623			633	
STATISTICAL TESTS					
POLY 3	P=0.386	P=0.250N	P=0.239N	P=0.683	
POLY 1.5	P=0.384	P=0.243N	P=0.238N	P=0.689	
POLY 6	P=0.389	P=0.257N	P=0.236N	P=0.676	
RAO-SCOTT	P=0.413	P=0.312N	P=0.309N	P=0.673	
LITTER C-A/FISHERS	P=0.380	P=0.245N	P=0.245N	P=0.695	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Kidney: Renal Tubule Apoptosis					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	0/37.00	0/38.80	0/37.21	
POLY-3 PERCENT (g)	0%	0%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE					
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Kidney: Renal Tubule Cyst					
LESION RATES					
OVERALL (a)	4/50 (8%)	5/50 (10%)	4/50 (8%)	6/50 (12%)	
LITTERS (b)	4/25 (16%)	5/25 (20%)	4/25 (16%)	6/25 (24%)	
POLY-3 RATE (c)	4/39.32	5/38.49	4/39.26	6/38.87	
POLY-3 PERCENT (g)	10.2%	13%	10.2%	15.4%	
TERMINAL (d)	0/15 (0%)	1/15 (7%)	3/21 (14%)	1/16 (6%)	
FIRST INCIDENCE	621	560	595	434	
STATISTICAL TESTS					
POLY 3	P=0.329	P=0.486	P=0.644	P=0.360	
POLY 1.5	P=0.335	P=0.493	P=0.644N	P=0.368	
POLY 6	P=0.323	P=0.483	P=0.640N	P=0.353	
RAO-SCOTT	P=0.316	P=0.457	P=0.615	P=0.336	
LITTER C-A/FISHERS	P=0.325	P=0.500	P=0.649	P=0.363	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males	
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male
Liver Angiectasis				
LESION RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	1/38.56	0/37.00	0/38.80	0/37.21
POLY-3 PERCENT (g)	2.6%	0%	0%	0%
TERMINAL (d)	1/15 (7%)	0/15 (0%)	0/21 (0%)	0/16 (0%)
FIRST INCIDENCE	730 (T)			
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver Basophilic Focus					
LESION RATES					
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	4/50 (8%)	
LITTERS (b)	0/25 (0%)	2/25 (8%)	1/25 (4%)	4/25 (16%)	
POLY-3 RATE (c)	0/38.56	2/37.47	1/39.00	4/38.07	
POLY-3 PERCENT (g)	0%	5.3%	2.6%	10.5%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	2/16 (13%)	
FIRST INCIDENCE		666	679	598	
STATISTICAL TESTS					
POLY 3	P=0.044*	P=0.230	P=0.502	P=0.057	
POLY 1.5	P=0.046*	P=0.233	P=0.501	P=0.059	
POLY 6	P=0.043*	P=0.228	P=0.508	P=0.056	
RAO-SCOTT	P=0.067	P=0.251	P=0.498	P=0.083	
LITTER C-A/FISHERS	P=0.044*	P=0.245	P=0.500	P=0.055	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver Clear Cell Focus					
LESION RATES					
OVERALL (a)	19/50 (38%)	13/50 (26%)	24/50 (48%)	17/50 (34%)	
LITTERS (b)	19/25 (76%)	11/25 (44%)	18/25 (72%)	11/25 (44%)	
POLY-3 RATE (c)	19/39.72	13/37.96	24/39.91	17/38.40	
POLY-3 PERCENT (g)	47.8%	34.3%	60.1%	44.3%	
TERMINAL (d)	13/15 (87%)	10/15 (67%)	19/21 (91%)	14/16 (88%)	
FIRST INCIDENCE	621	475	606	586	
STATISTICAL TESTS					
POLY 3	P=0.505	P=0.150N	P=0.173	P=0.463N	
POLY 1.5	P=0.523	P=0.143N	P=0.191	P=0.434N	
POLY 6	P=0.482	P=0.160N	P=0.169	P=0.503N	
RAO-SCOTT	P=0.492	P=0.163N	P=0.192	P=0.453N	
LITTER C-A/FISHERS	P=0.079N	P=0.021N*	P=0.500N	P=0.021N*	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver Degeneration Cystic					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	1/25 (4%)	
POLY-3 RATE (c)	0/38.56	0/37.00	2/38.95	1/37.44	
POLY-3 PERCENT (g)	0%	0%	5.1%	2.7%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	0/16 (0%)	
FIRST INCIDENCE			694	669	
STATISTICAL TESTS					
POLY 3	P=0.344	(e)	P=0.239	P=0.494	
POLY 1.5	P=0.348	(e)	P=0.238	P=0.498	
POLY 6	P=0.341	(e)	P=0.244	P=0.491	
RAO-SCOTT	P=0.388	(e)	P=0.308	P=0.535	
LITTER C-A/FISHERS	P=0.349	(e)	P=0.245	P=0.500	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver Eosinophilic Focus					
LESION RATES					
OVERALL (a)	5/50 (10%)	7/50 (14%)	2/50 (4%)	1/50 (2%)	
LITTERS (b)	5/25 (20%)	7/25 (28%)	2/25 (8%)	1/25 (4%)	
POLY-3 RATE (c)	5/39.40	7/37.17	2/39.58	1/37.21	
POLY-3 PERCENT (g)	12.7%	18.8%	5.1%	2.7%	
TERMINAL (d)	2/15 (13%)	6/15 (40%)	0/21 (0%)	1/16 (6%)	
FIRST INCIDENCE	599	687	618	730 (T)	
STATISTICAL TESTS					
POLY 3	P=0.034N*	P=0.335	P=0.212N	P=0.112N	
POLY 1.5	P=0.032N*	P=0.357	P=0.214N	P=0.106N	
POLY 6	P=0.036N*	P=0.307	P=0.201N	P=0.121N	
RAO-SCOTT	P=0.038N*	P=0.326	P=0.209N	P=0.113N	
LITTER C-A/FISHERS	P=0.027N*	P=0.371	P=0.209N	P=0.095N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver Extramedullary Hematopoie	esis				
LESION RATES					
OVERALL (a)	0/50 (0%)	3/50 (6%)	1/50 (2%)	3/50 (6%)	
LITTERS (b)	0/25 (0%)	3/25 (12%)	1/25 (4%)	3/25 (12%)	
POLY-3 RATE (c)	0/38.56	3/38.51	1/38.88	3/38.71	
POLY-3 PERCENT (g)	0%	7.8%	2.6%	7.8%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE		274	711	520	
STATISTICAL TESTS					
POLY 3	P=0.216	P=0.117	P=0.502	P=0.118	
POLY 1.5	P=0.218	P=0.119	P=0.501	P=0.119	
POLY 6	P=0.217	P=0.116	P=0.507	P=0.118	
RAO-SCOTT	P=0.253	P=0.158	P=0.514	P=0.159	
LITTER C-A/FISHERS	P=0.213	P=0.117	P=0.500	P=0.117	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver Hepatodiaphragmatic Nodu	le				
LESION RATES					
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	
LITTERS (b)	0/25 (0%)	1/25 (4%)	2/25 (8%)	2/25 (8%)	
POLY-3 RATE (c)	0/38.56	1/37.00	2/39.28	3/37.28	
POLY-3 PERCENT (g)	0%	2.7%	5.1%	8.1%	
TERMINAL (d)	0/15 (0%)	1/15 (7%)	0/21 (0%)	2/16 (13%)	
FIRST INCIDENCE		730 (T)	616	713	
STATISTICAL TESTS					
POLY 3	P=0.081	P=0.492	P=0.241	P=0.111	
POLY 1.5	P=0.084	P=0.496	P=0.239	P=0.115	
POLY 6	P=0.077	P=0.488	P=0.248	P=0.107	
RAO-SCOTT	P=0.150	P=0.564	P=0.343	P=0.200	
LITTER C-A/FISHERS	P=0.225	P=0.500	P=0.245	P=0.245	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver Mixed Cell Focus					
LESION RATES					
OVERALL (a)	2/50 (4%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	
LITTERS (b)	2/25 (8%)	1/25 (4%)	0/25 (0%)	2/25 (8%)	
POLY-3 RATE (c)	2/39.09	1/37.00	0/38.80	2/37.40	
POLY-3 PERCENT (g)	5.1%	2.7%	0%	5.4%	
TERMINAL (d)	0/15 (0%)	1/15 (7%)	0/21 (0%)	1/16 (6%)	
FIRST INCIDENCE	599	730 (T)		682	
STATISTICAL TESTS					
POLY 3	P=0.509	P=0.519N	P=0.238N	P=0.679	
POLY 1.5	P=0.511	P=0.510N	P=0.238N	P=0.687	
POLY 6	P=0.506	P=0.531N	P=0.235N	P=0.670	
RAO-SCOTT	P=0.496	P=0.510N	P=0.262N	P=0.656	
LITTER C-A/FISHERS	P=0.512	P=0.500N	P=0.245N	P=0.695	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver Necrosis					
LESION RATES					
OVERALL (a)	8/50 (16%)	3/50 (6%)	4/50 (8%)	2/50 (4%)	
LITTERS (b)	8/25 (32%)	3/25 (12%)	4/25 (16%)	2/25 (8%)	
POLY-3 RATE (c)	8/40.31	3/37.81	4/40.00	2/37.78	
POLY-3 PERCENT (g)	19.8%	7.9%	10%	5.3%	
TERMINAL (d)	1/15 (7%)	0/15 (0%)	1/21 (5%)	0/16 (0%)	
FIRST INCIDENCE	538	617	547	633	
STATISTICAL TESTS					
POLY 3	P=0.084N	P=0.115N	P=0.176N	P=0.053N	
POLY 1.5	P=0.082N	P=0.107N	P=0.176N	P=0.049N*	
POLY 6	P=0.086N	P=0.124N	P=0.167N	P=0.059N	
RAO-SCOTT	P=0.092N	P=0.117N	P=0.177N	P=0.058N	
LITTER C-A/FISHERS	P=0.073N	P=0.085N	P=0.160N	P=0.037N*	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver					
Pigment					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	0/37.00	0/38.80	0/37.21	
POLY-3 PERCENT (g)	0%	0%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE					
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	
LITTERS (b)	2/25 (8%)	0/25 (0%)	0/25 (0%)	1/25 (4%)	
POLY-3 RATE (c)	2/39.11	0/37.00	0/38.80	1/37.56	
POLY-3 PERCENT (g)	5.1%	0%	0%	2.7%	
TERMINAL (d)	1/15 (7%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	562			633	
STATISTICAL TESTS					
POLY 3	P=0.643N	P=0.249N	P=0.238N	P=0.514N	
POLY 1.5	P=0.646N	P=0.243N	P=0.238N	P=0.506N	
POLY 6	P=0.640N	P=0.255N	P=0.234N	P=0.522N	
RAO-SCOTT	P=0.645N	P=0.310N	P=0.306N	P=0.535N	
LITTER C-A/FISHERS	P=0.651N	P=0.245N	P=0.245N	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver: Bile Duct Cyst					
LESION RATES					
OVERALL (a)	4/50 (8%)	4/50 (8%)	1/50 (2%)	1/50 (2%)	
LITTERS (b)	4/25 (16%)	4/25 (16%)	1/25 (4%)	1/25 (4%)	
POLY-3 RATE (c)	4/38.83	4/37.81	1/38.80	1/37.21	
POLY-3 PERCENT (g)	10.3%	10.6%	2.6%	2.7%	
TERMINAL (d)	1/15 (7%)	1/15 (7%)	1/21 (5%)	1/16 (6%)	
FIRST INCIDENCE	693	637	730 (T)	730 (T)	
STATISTICAL TESTS					
POLY 3	P=0.106N	P=0.631	P=0.177N	P=0.189N	
POLY 1.5	P=0.104N	P=0.636	P=0.178N	P=0.183N	
POLY 6	P=0.110N	P=0.629	P=0.170N	P=0.197N	
RAO-SCOTT	P=0.126N	P=0.610	P=0.195N	P=0.205N	
LITTER C-A/FISHERS	P=0.097N	P=0.649	P=0.174N	P=0.174N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Liver: Bile Duct Dilation					
LESION RATES					
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	
LITTERS (b)	3/25 (12%)	1/25 (4%)	1/25 (4%)	0/25 (0%)	
POLY-3 RATE (c)	3/38.71	1/37.28	1/38.80	0/37.21	
POLY-3 PERCENT (g)	7.8%	2.7%	2.6%	0%	
TERMINAL (d)	1/15 (7%)	0/15 (0%)	1/21 (5%)	0/16 (0%)	
FIRST INCIDENCE	711	654	730 (T)		
STATISTICAL TESTS					
POLY 3	P=0.116N	P=0.318N	P=0.303N	P=0.124N	
POLY 1.5	P=0.116N	P=0.312N	P=0.304N	P=0.121N	
POLY 6	P=0.117N	P=0.323N	P=0.295N	P=0.128N	
RAO-SCOTT	P=0.147N	P=0.336N	P=0.326N	P=0.156N	
LITTER C-A/FISHERS	P=0.114N	P=0.305N	P=0.305N	P=0.117N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males	
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male
Liver: Bile Duct Hyperplasia				
LESION RATES				
OVERALL (a)	27/50 (54%)	19/50 (38%)	25/50 (50%)	18/50 (36%)
LITTERS (b)	19/25 (76%)	15/25 (60%)	19/25 (76%)	12/25 (48%)
POLY-3 RATE (c)	27/42.46	19/39.94	25/42.91	18/40.67
POLY-3 PERCENT (g)	63.6%	47.6%	58.3%	44.3%
TERMINAL (d)	10/15 (67%)	9/15 (60%)	14/21 (67%)	6/16 (38%)
FIRST INCIDENCE	481	575	521	442
STATISTICAL TESTS				
POLY 3	P=0.095N	P=0.093N	P=0.383N	P=0.049N*
POLY 1.5	P=0.096N	P=0.083N	P=0.397N	P=0.047N*
POLY 6	P=0.096N	P=0.107N	P=0.339N	P=0.054N
RAO-SCOTT	P=0.117N	P=0.113N	P=0.388N	P=0.067N
LITTER C-A/FISHERS	P=0.046N*	P=0.182N	P=0.629	P=0.040N*

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lung Hemorrhage					
LESION RATES					
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	2/25 (8%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	2/37.74	0/38.80	0/37.21	
POLY-3 PERCENT (g)	0%	5.3%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE		596			
STATISTICAL TESTS					
POLY 3	P=0.376N	P=0.231	(e)	(e)	
POLY 1.5	P=0.372N	P=0.234	(e)	(e)	
POLY 6	P=0.379N	P=0.230	(e)	(e)	
RAO-SCOTT	P=0.459N	P=0.354	(e)	(e)	
LITTER C-A/FISHERS	P=0.368N	P=0.245	(e)	(e)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lung Infiltration Cellular Histiocy	to				
LESION RATES					
OVERALL (a)	21/50 (42%)	19/50 (38%)	29/50 (58%)	26/50 (52%)	
LITTERS (b)	16/25 (64%)	15/25 (60%)	21/25 (84%)	20/25 (80%)	
POLY-3 RATE (c)	21/42.40	19/42.89	29/43.81	26/43.41	
POLY-3 PERCENT (g)	49.5%	44.3%	66.2%	59.9%	
TERMINAL (d)	7/15 (47%)	6/15 (40%)	12/21 (57%)	10/16 (63%)	
FIRST INCIDENCE	481	274	435	434	
STATISTICAL TESTS					
POLY 3	P=0.114	P=0.391N	P=0.077	P=0.216	
POLY 1.5	P=0.119	P=0.389N	P=0.077	P=0.222	
POLY 6	P=0.114	P=0.401N	P=0.097	P=0.214	
RAO-SCOTT	P=0.122	P=0.382N	P=0.084	P=0.219	
LITTER C-A/FISHERS	P=0.088	P=0.500N	P=0.098	P=0.173	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lung Inflammation Acute					
LESION RATES					
OVERALL (a)	3/50 (6%)	4/50 (8%)	1/50 (2%)	1/50 (2%)	
LITTERS (b)	3/25 (12%)	4/25 (16%)	1/25 (4%)	1/25 (4%)	
POLY-3 RATE (c)	3/38.83	4/38.14	1/38.88	1/37.98	
POLY-3 PERCENT (g)	7.7%	10.5%	2.6%	2.6%	
TERMINAL (d)	0/15 (0%)	1/15 (7%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	693	559	711	449	
STATISTICAL TESTS					
POLY 3	P=0.157N	P=0.490	P=0.304N	P=0.312N	
POLY 1.5	P=0.155N	P=0.495	P=0.304N	P=0.307N	
POLY 6	P=0.160N	P=0.489	P=0.296N	P=0.318N	
RAO-SCOTT	P=0.176N	P=0.482	P=0.312N	P=0.318N	
LITTER C-A/FISHERS	P=0.149N	P=0.500	P=0.305N	P=0.305N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lung					
Inflammation Chronic					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	4/50 (8%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	1/25 (4%)	4/25 (16%)	
POLY-3 RATE (c)	0/38.56	0/37.00	1/38.80	4/37.23	
POLY-3 PERCENT (g)	0%	0%	2.6%	10.7%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	3/16 (19%)	
FIRST INCIDENCE			730 (T)	725	
STATISTICAL TESTS					
POLY 3	P=0.004**	(e)	P=0.501	P=0.054	
POLY 1.5	P=0.004**	(e)	P=0.501	P=0.058	
POLY 6	P=0.004**	(e)	P=0.506	P=0.051	
RAO-SCOTT	P=0.017*	(e)	P=0.547	P=0.105	
LITTER C-A/FISHERS	P=0.005**	(e)	P=0.500	P=0.055	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lung Inflammation Granulomatou	us				
LESION RATES					
OVERALL (a)	10/50 (20%)	9/50 (18%)	13/50 (26%)	9/50 (18%)	
LITTERS (b)	8/25 (32%)	8/25 (32%)	11/25 (44%)	9/25 (36%)	
POLY-3 RATE (c)	10/40.78	9/38.77	13/40.35	9/40.00	
POLY-3 PERCENT (g)	24.5%	23.2%	32.2%	22.5%	
TERMINAL (d)	4/15 (27%)	4/15 (27%)	8/21 (38%)	2/16 (13%)	
FIRST INCIDENCE	481	488	558	442	
STATISTICAL TESTS					
POLY 3	P=0.474N	P=0.551N	P=0.298	P=0.519N	
POLY 1.5	P=0.471N	P=0.526N	P=0.306	P=0.506N	
POLY 6	P=0.474N	P=0.578N	P=0.308	P=0.530N	
RAO-SCOTT	P=0.468N	P=0.534N	P=0.297	P=0.506N	
LITTER C-A/FISHERS	P=0.450	P=0.619	P=0.280	P=0.500	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lung Mineral					
LESION RATES					
OVERALL (a)	6/50 (12%)	11/50 (22%)	1/50 (2%)	5/50 (10%)	
LITTERS (b)	6/25 (24%)	9/25 (36%)	1/25 (4%)	5/25 (20%)	
POLY-3 RATE (c)	6/40.72	11/41.63	1/39.64	5/38.98	
POLY-3 PERCENT (g)	14.7%	26.4%	2.5%	12.8%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	538	488	402	554	
STATISTICAL TESTS					
POLY 3	P=0.212N	P=0.147	P=0.058N	P=0.531N	
POLY 1.5	P=0.203N	P=0.145	P=0.057N	P=0.514N	
POLY 6	P=0.222N	P=0.155	P=0.059N	P=0.549N	
RAO-SCOTT	P=0.250N	P=0.178	P=0.083N	P=0.527N	
LITTER C-A/FISHERS	P=0.273N	P=0.269	P=0.049N*	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lung					
Squamous Metaplasia					
LESION RATES					
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	1/25 (4%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	1/37.55	0/38.80	0/37.21	
POLY-3 PERCENT (g)	0%	2.7%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE		560			
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males	
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male
Lung Thrombus				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)
POLY-3 RATE (c)	0/38.56	0/37.00	0/38.80	2/38.38
POLY-3 PERCENT (g)	0%	0%	0%	5.2%
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)
FIRST INCIDENCE				520
STATISTICAL TESTS				
POLY 3	P=0.041*	(e)	(e)	P=0.235
POLY 1.5	P=0.041*	(e)	(e)	P=0.237
POLY 6	P=0.041*	(e)	(e)	P=0.234
RAO-SCOTT	P=0.121	(e)	(e)	P=0.355
LITTER C-A/FISHERS	P=0.041*	(e)	(e)	P=0.245

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lung: Alveolar Epithelium Hyperplasia					
LESION RATES					
OVERALL (a)	2/50 (4%)	1/50 (2%)	2/50 (4%)	2/50 (4%)	
LITTERS (b)	2/25 (8%)	1/25 (4%)	2/25 (8%)	2/25 (8%)	
POLY-3 RATE (c)	2/38.75	1/37.19	2/38.95	2/37.26	
POLY-3 PERCENT (g)	5.2%	2.7%	5.1%	5.4%	
TERMINAL (d)	1/15 (7%)	0/15 (0%)	1/21 (5%)	1/16 (6%)	
FIRST INCIDENCE	680	680	693	718	
STATISTICAL TESTS					
POLY 3	P=0.521	P=0.514N	P=0.693N	P=0.681	
POLY 1.5	P=0.527	P=0.507N	P=0.693N	P=0.688	
POLY 6	P=0.513	P=0.521N	P=0.686N	P=0.673	
RAO-SCOTT	P=0.495	P=0.476N	P=0.660N	P=0.644	
LITTER C-A/FISHERS	P=0.530	P=0.500N	P=0.695	P=0.695	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lymph Node, Mandibular Ectasia					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	0/37.00	2/39.49	0/37.21	
POLY-3 PERCENT (g)	0%	0%	5.1%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	0/16 (0%)	
FIRST INCIDENCE			498		
STATISTICAL TESTS					
POLY 3	P=0.704N	(e)	P=0.242	(e)	
POLY 1.5	P=0.700N	(e)	P=0.240	(e)	
POLY 6	P=0.709N	(e)	P=0.249	(e)	
RAO-SCOTT	P=0.700N	(e)	P=0.350	(e)	
LITTER C-A/FISHERS	P=0.698N	(e)	P=0.245	(e)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lymph Node, Mandibular Infiltration Cellular Plasma	Cell				
LESION RATES					
OVERALL (a)	2/50 (4%)	2/50 (4%)	0/50 (0%)	2/50 (4%)	
LITTERS (b)	2/25 (8%)	2/25 (8%)	0/25 (0%)	2/25 (8%)	
POLY-3 RATE (c)	2/38.95	2/37.28	0/38.80	2/37.28	
POLY-3 PERCENT (g)	5.1%	5.4%	0%	5.4%	
TERMINAL (d)	1/15 (7%)	1/15 (7%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	618	654		718	
STATISTICAL TESTS					
POLY 3	P=0.610	P=0.679	P=0.237N	P=0.679	
POLY 1.5	P=0.615	P=0.686	P=0.237N	P=0.687	
POLY 6	P=0.604	P=0.673	P=0.233N	P=0.670	
RAO-SCOTT	P=0.590	P=0.654	P=0.256N	P=0.654	
LITTER C-A/FISHERS	P=0.620	P=0.695	P=0.245N	P=0.695	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Lymph Node, Mandibular Inflammation					
LESION RATES					
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	2/25 (8%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	2/37.94	0/38.80	0/37.21	
POLY-3 PERCENT (g)	0%	5.3%	0%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE		559			
STATISTICAL TESTS					
POLY 3	P=0.376N	P=0.233	(e)	(e)	
POLY 1.5	P=0.372N	P=0.235	(e)	(e)	
POLY 6	P=0.378N	P=0.232	(e)	(e)	
RAO-SCOTT	P=0.460N	P=0.357	(e)	(e)	
LITTER C-A/FISHERS	P=0.368N	P=0.245	(e)	(e)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males						
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male			
Lymph Node: Renal							
Ectasia							
LESION RATES							
OVERALL (a)	0/5 (0%)	0/4 (0%)	0/3 (0%)	2/4 (50%)			
LITTERS (b)	0/5 (0%)	0/3 (0%)	0/3 (0%)	2/4 (50%)			
POLY-3 RATE (c)	0/4.36	0/2.76	0/3.00	2/3.75			
POLY-3 PERCENT (g)	0%	0%	0%	53.3%			
TERMINAL (d)	0/0 (0%)	0/1 (0%)	0/3 (0%)	1/1 (100%)			
FIRST INCIDENCE				564			
STATISTICAL TESTS							
POLY 3	P=0.020*	(e)	(e)	P=0.147			
POLY 1.5	P=0.018*	(e)	(e)	P=0.143			
POLY 6	P=0.023*	(e)	(e)	P=0.154			
RAO-SCOTT	P=0.089	(e)	(e)	P=0.266			
LITTER C-A/FISHERS	P=0.037*	(e)	(e)	P=0.167			

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Mammary Gland Galactocele						
LESION RATES						
OVERALL (a)	1/48 (2%)	0/48 (0%)	0/49 (0%)	0/48 (0%)		
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/25 (0%)		
POLY-3 RATE (c)	1/37.14	0/35.77	0/37.80	0/35.69		
POLY-3 PERCENT (g)	2.7%	0%	0%	0%		
TERMINAL (d)	0/14 (0%)	0/14 (0%)	0/20 (0%)	0/15 (0%)		
FIRST INCIDENCE	577			, <del></del>		
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)		
POLY 1.5	(n)	(n)	(n)	(n)		
POLY 6	(n)	(n)	(n)	(n)		
RAO-SCOTT	(n)	(n)	(n)	(n)		
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Mammary Gland Hyperplasia					
LESION RATES					
OVERALL (a)	1/48 (2%)	1/48 (2%)	1/49 (2%)	0/48 (0%)	
LITTERS (b)	1/25 (4%)	1/25 (4%)	1/25 (4%)	0/25 (0%)	
POLY-3 RATE (c)	1/36.69	1/36.11	1/38.59	0/35.69	
POLY-3 PERCENT (g)	2.7%	2.8%	2.6%	0%	
TERMINAL (d)	0/14 (0%)	0/14 (0%)	0/20 (0%)	0/15 (0%)	
FIRST INCIDENCE	718	637	435		
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Nose Foreign Body						
LESION RATES						
OVERALL (a)	6/50 (12%)	1/50 (2%)	1/50 (2%)	0/50 (0%)		
LITTERS (b)	6/25 (24%)	1/25 (4%)	1/25 (4%)	0/25 (0%)		
POLY-3 RATE (c)	6/39.62	1/37.00	1/38.80	0/37.21		
POLY-3 PERCENT (g)	15.1%	2.7%	2.6%	0%		
TERMINAL (d)	2/15 (13%)	1/15 (7%)	1/21 (5%)	0/16 (0%)		
FIRST INCIDENCE	573	730 (T)	730 (T)			
STATISTICAL TESTS						
POLY 3	P=0.022N*	P=0.065N	P=0.057N	P=0.018N*		
POLY 1.5	P=0.022N*	P=0.061N	P=0.057N	P=0.016N*		
POLY 6	P=0.021N*	P=0.071N	P=0.055N	P=0.020N*		
RAO-SCOTT	P=0.044N*	P=0.094N	P=0.086N	P=0.035N*		
LITTER C-A/FISHERS	P=0.024N*	P=0.049N*	P=0.049N*	P=0.011N*		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Nose Inflammation					
LESION RATES					
OVERALL (a)	5/50 (10%)	6/50 (12%)	0/50 (0%)	3/50 (6%)	
LITTERS (b)	5/25 (20%)	5/25 (20%)	0/25 (0%)	3/25 (12%)	
POLY-3 RATE (c)	5/39.58	6/39.57	0/38.80	3/38.41	
POLY-3 PERCENT (g)	12.6%	15.2%	0%	7.8%	
TERMINAL (d)	0/15 (0%)	1/15 (7%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	616	475		564	
STATISTICAL TESTS					
POLY 3	P=0.224N	P=0.500	P=0.031N*	P=0.371N	
POLY 1.5	P=0.221N	P=0.502	P=0.031N*	P=0.362N	
POLY 6	P=0.228N	P=0.500	P=0.030N*	P=0.381N	
RAO-SCOTT	P=0.259N	P=0.503	P=0.055N	P=0.388N	
LITTER C-A/FISHERS	P=0.265N	P=0.637	P=0.025N*	P=0.351N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Nose Inflammation Acute						
LESION RATES						
OVERALL (a)	2/50 (4%)	0/50 (0%)	2/50 (4%)	0/50 (0%)		
LITTERS (b)	2/25 (8%)	0/25 (0%)	2/25 (8%)	0/25 (0%)		
POLY-3 RATE (c)	2/38.56	0/37.00	2/38.95	0/37.21		
POLY-3 PERCENT (g)	5.2%	0%	5.1%	0%		
TERMINAL (d)	2/15 (13%)	0/15 (0%)	1/21 (5%)	0/16 (0%)		
FIRST INCIDENCE	730 (T)		693			
STATISTICAL TESTS						
POLY 3	P=0.287N	P=0.246N	P=0.691N	P=0.244N		
POLY 1.5	P=0.286N	P=0.242N	P=0.692N	P=0.240N		
POLY 6	P=0.288N	P=0.250N	P=0.682N	P=0.248N		
RAO-SCOTT	P=0.338N	P=0.309N	P=0.682N	P=0.308N		
LITTER C-A/FISHERS	P=0.285N	P=0.245N	P=0.695	P=0.245N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Nose Inflammation Chronic						
LESION RATES						
OVERALL (a)	6/50 (12%)	4/50 (8%)	5/50 (10%)	4/50 (8%)		
LITTERS (b)	5/25 (20%)	4/25 (16%)	4/25 (16%)	3/25 (12%)		
POLY-3 RATE (c)	6/39.53	4/37.45	5/39.08	4/37.55		
POLY-3 PERCENT (g)	15.2%	10.7%	12.8%	10.7%		
TERMINAL (d)	4/15 (27%)	2/15 (13%)	3/21 (14%)	2/16 (13%)		
FIRST INCIDENCE	573	630	679	643		
STATISTICAL TESTS						
POLY 3	P=0.416N	P=0.402N	P=0.508N	P=0.400N		
POLY 1.5	P=0.407N	P=0.387N	P=0.504N	P=0.384N		
POLY 6	P=0.428N	P=0.418N	P=0.499N	P=0.419N		
RAO-SCOTT	P=0.428N	P=0.413N	P=0.509N	P=0.412N		
LITTER C-A/FISHERS	P=0.320N	P=0.500N	P=0.500N	P=0.351N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Nose: Nasolacrimal Duct Inflammation Chronic						
LESION RATES						
OVERALL (a)	10/50 (20%)	8/50 (16%)	6/50 (12%)	10/50 (20%)		
LITTERS (b)	9/25 (36%)	8/25 (32%)	6/25 (24%)	9/25 (36%)		
POLY-3 RATE (c)	10/39.84	8/38.43	6/40.62	10/39.41		
POLY-3 PERCENT (g)	25.1%	20.8%	14.8%	25.4%		
TERMINAL (d)	4/15 (27%)	3/15 (20%)	3/21 (14%)	4/16 (25%)		
FIRST INCIDENCE	599	488	402	442		
STATISTICAL TESTS						
POLY 3	P=0.447	P=0.427N	P=0.186N	P=0.592		
POLY 1.5	P=0.451	P=0.411N	P=0.193N	P=0.600		
POLY 6	P=0.446	P=0.446N	P=0.170N	P=0.587		
RAO-SCOTT	P=0.437	P=0.411N	P=0.183N	P=0.572		
LITTER C-A/FISHERS	P=0.500	P=0.500N	P=0.269N	P=0.616		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Nose: Respiratory Epitheliu Hyperplasia	ım					
LESION RATES						
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	2/50 (4%)		
LITTERS (b)	1/25 (4%)	1/25 (4%)	1/25 (4%)	2/25 (8%)		
POLY-3 RATE (c)	1/38.56	1/37.31	1/38.80	2/37.42		
POLY-3 PERCENT (g)	2.6%	2.7%	2.6%	5.3%		
TERMINAL (d)	1/15 (7%)	0/15 (0%)	1/21 (5%)	1/16 (6%)		
FIRST INCIDENCE	730 (T)	644	730 (T)	674		
STATISTICAL TESTS						
POLY 3	P=0.354	P=0.754	P=0.760N	P=0.490		
POLY 1.5	P=0.359	P=0.757	P=0.760N	P=0.496		
POLY 6	P=0.350	P=0.752	P=0.755N	P=0.484		
RAO-SCOTT	P=0.344	P=0.713	P=0.723N	P=0.463		
LITTER C-A/FISHERS	P=0.358	P=0.755	P=0.755	P=0.500		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Pancreas Polyarteritis Nodosa						
LESION RATES						
OVERALL (a)	6/50 (12%)	6/50 (12%)	7/50 (14%)	10/50 (20%)		
LITTERS (b)	5/25 (20%)	6/25 (24%)	7/25 (28%)	7/25 (28%)		
POLY-3 RATE (c)	6/40.19	6/37.62	7/39.64	10/39.37		
POLY-3 PERCENT (g)	14.9%	16%	17.7%	25.4%		
TERMINAL (d)	1/15 (7%)	4/15 (27%)	3/21 (14%)	3/16 (19%)		
FIRST INCIDENCE	598	559	606	598		
STATISTICAL TESTS						
POLY 3	P=0.123	P=0.575	P=0.489	P=0.185		
POLY 1.5	P=0.126	P=0.598	P=0.495	P=0.197		
POLY 6	P=0.122	P=0.543	P=0.494	P=0.175		
RAO-SCOTT	P=0.151	P=0.564	P=0.490	P=0.213		
LITTER C-A/FISHERS	P=0.352	P=0.500	P=0.371	P=0.371		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males						
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male			
Pancreas: Acinus Atrophy							
LESION RATES							
OVERALL (a)	5/50 (10%)	4/50 (8%)	1/50 (2%)	4/50 (8%)			
LITTERS (b)	5/25 (20%)	3/25 (12%)	1/25 (4%)	4/25 (16%)			
POLY-3 RATE (c)	5/38.99	4/37.08	1/39.24	4/37.58			
POLY-3 PERCENT (g)	12.8%	10.8%	2.6%	10.6%			
TERMINAL (d)	3/15 (20%)	3/15 (20%)	0/21 (0%)	2/16 (13%)			
FIRST INCIDENCE	624	711	604	632			
STATISTICAL TESTS							
POLY 3	P=0.521N	P=0.532N	P=0.097N	P=0.523N			
POLY 1.5	P=0.516N	P=0.516N	P=0.099N	P=0.510N			
POLY 6	P=0.527N	P=0.551N	P=0.091N	P=0.538N			
RAO-SCOTT	P=0.517N	P=0.522N	P=0.124N	P=0.515N			
LITTER C-A/FISHERS	P=0.593N	P=0.351N	P=0.095N	P=0.500N			

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Pancreas: Acinus Hyperplasia						
LESION RATES						
OVERALL (a)	9/50 (18%)	9/50 (18%)	8/50 (16%)	6/50 (12%)		
LITTERS (b)	6/25 (24%)	8/25 (32%)	8/25 (32%)	6/25 (24%)		
POLY-3 RATE (c)	9/39.51	9/38.54	8/40.62	6/39.08		
POLY-3 PERCENT (g)	22.8%	23.4%	19.7%	15.4%		
TERMINAL (d)	4/15 (27%)	4/15 (27%)	5/21 (24%)	2/16 (13%)		
FIRST INCIDENCE	599	488	413	442		
STATISTICAL TESTS						
POLY 3	P=0.213N	P=0.584	P=0.474N	P=0.289N		
POLY 1.5	P=0.212N	P=0.594	P=0.483N	P=0.284N		
POLY 6	P=0.215N	P=0.575	P=0.450N	P=0.295N		
RAO-SCOTT	P=0.234N	P=0.570	P=0.474N	P=0.305N		
LITTER C-A/FISHERS	P=0.447N	P=0.377	P=0.377	P=0.629		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Parathyroid Gland Hyperplasia Diffuse					
LESION RATES					
OVERALL (a)	13/49 (27%)	24/47 (51%)	16/44 (36%)	14/39 (36%)	
LITTERS (b)	11/25 (44%)	16/25 (64%)	13/25 (52%)	12/24 (50%)	
POLY-3 RATE (c)	13/40.99	24/43.47	16/38.12	14/34.02	
POLY-3 PERCENT (g)	31.7%	55.2%	42%	41.2%	
TERMINAL (d)	0/15 (0%)	2/15 (13%)	1/15 (7%)	3/12 (25%)	
FIRST INCIDENCE	599	488	413	442	
STATISTICAL TESTS					
POLY 3	P=0.515N	P=0.021*	P=0.234	P=0.268	
POLY 1.5	P=0.510N	P=0.016*	P=0.225	P=0.264	
POLY 6	P=0.538N	P=0.033*	P=0.263	P=0.268	
RAO-SCOTT	P=0.535N	P=0.034*	P=0.251	P=0.284	
LITTER C-A/FISHERS	P=0.494N	P=0.128	P=0.389	P=0.447	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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Black Cohosh
CAS Number: 84776-26-1

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Lab: BAT

			Males	
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male
Peripheral Nerve: Axon, Tri	geminal			
LESION RATES				
OVERALL (a)	0/0 (0%)	0/1 (0%)	1/1 (100%)	2/2 (100%)
LITTERS (b)	0/0 (0%)	0/1 (0%)	1/1 (100%)	2/2 (100%)
POLY-3 RATE (c)	0/0.00	0/0.60	1/1.00	2/2.00
POLY-3 PERCENT (g)	0%	0%	100%	100%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE			711	669
STATISTICAL TESTS				
POLY 3	(e)	(e)	(e)	(e)
POLY 1.5	(e)	(e)	(e)	(e)
POLY 6	(e)	(e)	(e)	(e)
RAO-SCOTT	(e)	(e)	(e)	(e)
LITTER C-A/FISHERS	(e)	(e)	(e)	(e)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

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Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Pituitary Gland: Pars Distali Hyperplasia	is				
LESION RATES					
OVERALL (a)	20/50 (40%)	15/50 (30%)	15/50 (30%)	15/50 (30%)	
LITTERS (b)	15/25 (60%)	10/25 (40%)	13/25 (52%)	13/25 (52%)	
POLY-3 RATE (c)	20/43.63	15/38.90	15/39.99	15/39.67	
POLY-3 PERCENT (g)	45.8%	38.6%	37.5%	37.8%	
TERMINAL (d)	4/15 (27%)	7/15 (47%)	9/21 (43%)	7/16 (44%)	
FIRST INCIDENCE	538	575	609	554	
STATISTICAL TESTS					
POLY 3	P=0.331N	P=0.324N	P=0.287N	P=0.297N	
POLY 1.5	P=0.301N	P=0.260N	P=0.242N	P=0.243N	
POLY 6	P=0.381N	P=0.422N	P=0.341N	P=0.382N	
RAO-SCOTT	P=0.350N	P=0.333N	P=0.299N	P=0.309N	
LITTER C-A/FISHERS	P=0.556	P=0.129N	P=0.388N	P=0.388N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

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Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Prostate Hyperplasia					
LESION RATES					
OVERALL (a)	2/50 (4%)	3/50 (6%)	2/50 (4%)	3/50 (6%)	
LITTERS (b)	2/25 (8%)	3/25 (12%)	2/25 (8%)	3/25 (12%)	
POLY-3 RATE (c)	2/38.56	3/37.10	2/39.26	3/37.21	
POLY-3 PERCENT (g)	5.2%	8.1%	5.1%	8.1%	
TERMINAL (d)	2/15 (13%)	2/15 (13%)	1/21 (5%)	3/16 (19%)	
FIRST INCIDENCE	730 (T)	706	595	730 (T)	
STATISTICAL TESTS					
POLY 3	P=0.470	P=0.482	P=0.689N	P=0.484	
POLY 1.5	P=0.478	P=0.491	P=0.691N	P=0.493	
POLY 6	P=0.461	P=0.474	P=0.678N	P=0.474	
RAO-SCOTT	P=0.451	P=0.449	P=0.654N	P=0.451	
LITTER C-A/FISHERS	P=0.483	P=0.500	P=0.695	P=0.500	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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Black Cohosh
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Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Prostate Inflammation Chronic					
LESION RATES					
OVERALL (a)	9/50 (18%)	7/50 (14%)	9/50 (18%)	6/50 (12%)	
LITTERS (b)	7/25 (28%)	6/25 (24%)	9/25 (36%)	5/25 (20%)	
POLY-3 RATE (c)	9/39.97	7/37.78	9/39.67	6/37.99	
POLY-3 PERCENT (g)	22.5%	18.5%	22.7%	15.8%	
TERMINAL (d)	2/15 (13%)	1/15 (7%)	4/21 (19%)	3/16 (19%)	
FIRST INCIDENCE	618	669	616	614	
STATISTICAL TESTS					
POLY 3	P=0.312N	P=0.438N	P=0.599	P=0.319N	
POLY 1.5	P=0.300N	P=0.416N	P=0.602	P=0.301N	
POLY 6	P=0.331N	P=0.467N	P=0.608N	P=0.346N	
RAO-SCOTT	P=0.316N	P=0.430N	P=0.583	P=0.319N	
LITTER C-A/FISHERS	P=0.334N	P=0.500N	P=0.381	P=0.371N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males	
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male
Prostate Polyarteritis Nodosa				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	0/25 (0%)
POLY-3 RATE (c)	0/38.56	0/37.00	2/38.80	0/37.21
POLY-3 PERCENT (g)	0%	0%	5.2%	0%
TERMINAL (d)	0/15 (0%)	0/15 (0%)	2/21 (10%)	0/16 (0%)
FIRST INCIDENCE			730 (T)	
STATISTICAL TESTS				
POLY 3	P=0.705N	(e)	P=0.238	(e)
POLY 1.5	P=0.700N	(e)	P=0.238	(e)
POLY 6	P=0.709N	(e)	P=0.243	(e)
RAO-SCOTT	P=0.705N	(e)	P=0.360	(e)
LITTER C-A/FISHERS	P=0.698N	(e)	P=0.245	(e)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

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Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Seminal Vesicle Inflammation Chronic					
LESION RATES					
OVERALL (a)	3/50 (6%)	2/50 (4%)	1/50 (2%)	1/50 (2%)	
LITTERS (b)	2/25 (8%)	2/25 (8%)	1/25 (4%)	1/25 (4%)	
POLY-3 RATE (c)	3/38.95	2/37.31	1/38.80	1/37.23	
POLY-3 PERCENT (g)	7.7%	5.4%	2.6%	2.7%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	0/16 (0%)	
FIRST INCIDENCE	678	669	730 (T)	725	
STATISTICAL TESTS					
POLY 3	P=0.268N	P=0.520N	P=0.305N	P=0.320N	
POLY 1.5	P=0.265N	P=0.510N	P=0.305N	P=0.312N	
POLY 6	P=0.273N	P=0.530N	P=0.300N	P=0.331N	
RAO-SCOTT	P=0.316N	P=0.534N	P=0.359N	P=0.368N	
LITTER C-A/FISHERS	P=0.380N	P=0.695	P=0.500N	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Seminal Vesicle Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	0/37.00	2/39.00	0/37.21	
POLY-3 PERCENT (g)	0%	0%	5.1%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	0/16 (0%)	
FIRST INCIDENCE			679		
STATISTICAL TESTS					
POLY 3	P=0.704N	(e)	P=0.239	(e)	
POLY 1.5	P=0.700N	(e)	P=0.238	(e)	
POLY 6	P=0.709N	(e)	P=0.245	(e)	
RAO-SCOTT	P=0.703N	(e)	P=0.355	(e)	
LITTER C-A/FISHERS	P=0.698N	(e)	P=0.245	(e)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Skin Cyst Epithelial Inclusion					
LESION RATES					
OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	1/50 (2%)	
LITTERS (b)	1/25 (4%)	2/25 (8%)	1/25 (4%)	1/25 (4%)	
POLY-3 RATE (c)	1/38.88	2/37.35	1/39.26	1/37.46	
POLY-3 PERCENT (g)	2.6%	5.4%	2.6%	2.7%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	643	654	595	663	
STATISTICAL TESTS					
POLY 3	P=0.544N	P=0.486	P=0.759N	P=0.753	
POLY 1.5	P=0.539N	P=0.493	P=0.760N	P=0.757	
POLY 6	P=0.551N	P=0.480	P=0.754N	P=0.749	
RAO-SCOTT	P=0.519N	P=0.458	P=0.723N	P=0.712	
LITTER C-A/FISHERS	P=0.535N	P=0.500	P=0.755	P=0.755	

Test Type: CHRONIC Route: GAVAGE

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Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Skin Inflammation Chronic					
LESION RATES					
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	6/50 (12%)	
LITTERS (b)	1/25 (4%)	1/25 (4%)	1/25 (4%)	5/25 (20%)	
POLY-3 RATE (c)	1/38.76	1/37.07	1/38.80	6/38.00	
POLY-3 PERCENT (g)	2.6%	2.7%	2.6%	15.8%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	1/16 (6%)	
FIRST INCIDENCE	678	713	730 (T)	614	
STATISTICAL TESTS					
POLY 3	P=0.005**	P=0.751	P=0.761N	P=0.050*	
POLY 1.5	P=0.005**	P=0.756	P=0.761N	P=0.053	
POLY 6	P=0.005**	P=0.747	P=0.758N	P=0.047*	
RAO-SCOTT	P=0.022*	P=0.740	P=0.753N	P=0.105	
LITTER C-A/FISHERS	P=0.017*	P=0.755	P=0.755	P=0.095	

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Species/Strain: RATS/HSD

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Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Skin					
Ulcer					
LESION RATES					
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	5/50 (10%)	
LITTERS (b)	1/25 (4%)	1/25 (4%)	1/25 (4%)	4/25 (16%)	
POLY-3 RATE (c)	1/38.76	1/37.07	1/38.80	5/38.16	
POLY-3 PERCENT (g)	2.6%	2.7%	2.6%	13.1%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	1/21 (5%)	1/16 (6%)	
FIRST INCIDENCE	678	713	730 (T)	442	
STATISTICAL TESTS					
POLY 3	P=0.018*	P=0.751	P=0.761N	P=0.095	
POLY 1.5	P=0.019*	P=0.756	P=0.761N	P=0.099	
POLY 6	P=0.017*	P=0.747	P=0.758N	P=0.090	
RAO-SCOTT	P=0.050*	P=0.740	P=0.753N	P=0.161	
LITTER C-A/FISHERS	P=0.055	P=0.755	P=0.755	P=0.174	

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Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Skin: Epidermis Hyperplasia					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	3/50 (6%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)	
POLY-3 RATE (c)	0/38.56	0/37.00	0/38.80	3/38.01	
POLY-3 PERCENT (g)	0%	0%	0%	7.9%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	1/16 (6%)	
FIRST INCIDENCE				442	
STATISTICAL TESTS					
POLY 3	P=0.008**	(e)	(e)	P=0.115	
POLY 1.5	P=0.008**	(e)	(e)	P=0.118	
POLY 6	P=0.008**	(e)	(e)	P=0.112	
RAO-SCOTT	P=0.095	(e)	(e)	P=0.316	
LITTER C-A/FISHERS	P=0.041*	(e)	(e)	P=0.245	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

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Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Spleen Extramedullary Hematopoie	esis					
LESION RATES						
OVERALL (a)	41/50 (82%)	41/50 (82%)	42/49 (86%)	39/50 (78%)		
LITTERS (b)	25/25 (100%)	24/25 (96%)	25/25 (100%)	23/25 (92%)		
POLY-3 RATE (c)	41/47.13	41/45.46	42/45.21	39/45.75		
POLY-3 PERCENT (g)	87%	90.2%	92.9%	85.3%		
TERMINAL (d)	15/15 (100%)	15/15 (100%)	21/21 (100%)	16/16 (100%)		
FIRST INCIDENCE	155	274	435	434		
STATISTICAL TESTS						
POLY 3	P=0.333N	P=0.426	P=0.242	P=0.526N		
POLY 1.5	P=0.325N	P=0.516	P=0.300	P=0.465N		
POLY 6	P=0.366N	P=0.284	P=0.205	P=0.632N		
RAO-SCOTT	P=0.356N	P=0.435	P=0.277	P=0.519N		
LITTER C-A/FISHERS	P=0.149N	P=0.500N	P=1.000	P=0.245N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Spleen Pigment						
LESION RATES						
OVERALL (a)	38/50 (76%)	39/50 (78%)	43/49 (88%)	40/50 (80%)		
LITTERS (b)	25/25 (100%)	25/25 (100%)	25/25 (100%)	24/25 (96%)		
POLY-3 RATE (c)	38/46.80	39/46.78	43/47.10	40/46.80		
POLY-3 PERCENT (g)	81.2%	83.4%	91.3%	85.5%		
TERMINAL (d)	14/15 (93%)	13/15 (87%)	20/21 (95%)	14/16 (88%)		
FIRST INCIDENCE	155	433	402	434		
STATISTICAL TESTS						
POLY 3	P=0.370	P=0.498	P=0.103	P=0.381		
POLY 1.5	P=0.376	P=0.481	P=0.102	P=0.378		
POLY 6	P=0.404	P=0.546	P=0.113	P=0.428		
RAO-SCOTT	P=0.377	P=0.491	P=0.128	P=0.384		
LITTER C-A/FISHERS	P=0.213N	P=1.000	P=1.000	P=0.500N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Spleen: White Pulp Atrophy					
LESION RATES					
OVERALL (a)	17/50 (34%)	19/50 (38%)	13/49 (27%)	17/50 (34%)	
LITTERS (b)	15/25 (60%)	16/25 (64%)	12/25 (48%)	14/25 (56%)	
POLY-3 RATE (c)	17/44.65	19/44.72	13/43.71	17/44.86	
POLY-3 PERCENT (g)	38.1%	42.5%	29.7%	37.9%	
TERMINAL (d)	0/15 (0%)	1/15 (7%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	354	274	402	441	
STATISTICAL TESTS					
POLY 3	P=0.478N	P=0.416	P=0.272N	P=0.580N	
POLY 1.5	P=0.475N	P=0.420	P=0.272N	P=0.575N	
POLY 6	P=0.485N	P=0.424	P=0.259N	P=0.585N	
RAO-SCOTT	P=0.474N	P=0.410	P=0.269N	P=0.571N	
LITTER C-A/FISHERS	P=0.399N	P=0.500	P=0.285N	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Stomach, Forestomach Inflammation Acute						
LESION RATES						
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	0/50 (0%)		
LITTERS (b)	0/25 (0%)	1/25 (4%)	2/25 (8%)	0/25 (0%)		
POLY-3 RATE (c)	0/38.56	1/37.28	2/39.97	0/37.21		
POLY-3 PERCENT (g)	0%	2.7%	5%	0%		
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)		
FIRST INCIDENCE		654	445			
STATISTICAL TESTS						
POLY 3	P=0.526N	P=0.493	P=0.245	(e)		
POLY 1.5	P=0.520N	P=0.496	P=0.242	(e)		
POLY 6	P=0.534N	P=0.491	P=0.253	(e)		
RAO-SCOTT	P=0.534N	P=0.531	P=0.315	(e)		
LITTER C-A/FISHERS	P=0.515N	P=0.500	P=0.245	(e)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Stomach, Forestomach Inflammation Chronic						
LESION RATES						
OVERALL (a)	2/50 (4%)	2/50 (4%)	4/50 (8%)	3/50 (6%)		
LITTERS (b)	2/25 (8%)	2/25 (8%)	3/25 (12%)	3/25 (12%)		
POLY-3 RATE (c)	2/38.99	2/37.36	4/39.24	3/37.58		
POLY-3 PERCENT (g)	5.1%	5.4%	10.2%	8%		
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	1/16 (6%)		
FIRST INCIDENCE	621	637	694	632		
STATISTICAL TESTS						
POLY 3	P=0.405	P=0.680	P=0.339	P=0.483		
POLY 1.5	P=0.414	P=0.686	P=0.338	P=0.493		
POLY 6	P=0.395	P=0.673	P=0.350	P=0.473		
RAO-SCOTT	P=0.414	P=0.658	P=0.358	P=0.483		
LITTER C-A/FISHERS	P=0.404	P=0.695	P=0.500	P=0.500		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Stomach, Forestomach Mineral						
LESION RATES						
OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	0/50 (0%)		
LITTERS (b)	1/25 (4%)	2/25 (8%)	1/25 (4%)	0/25 (0%)		
POLY-3 RATE (c)	1/38.92	2/38.08	1/39.58	0/37.21		
POLY-3 PERCENT (g)	2.6%	5.3%	2.5%	0%		
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)		
FIRST INCIDENCE	631	553	445			
STATISTICAL TESTS						
POLY 3	P=0.241N	P=0.492	P=0.758N	P=0.509N		
POLY 1.5	P=0.236N	P=0.496	P=0.758N	P=0.504N		
POLY 6	P=0.247N	P=0.490	P=0.753N	P=0.515N		
RAO-SCOTT	P=0.252N	P=0.485	P=0.731N	P=0.489N		
LITTER C-A/FISHERS	P=0.229N	P=0.500	P=0.755	P=0.500N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Stomach, Forestomach Polyarteritis Nodosa						
LESION RATES						
OVERALL (a)	1/50 (2%)	1/50 (2%)	2/50 (4%)	1/50 (2%)		
LITTERS (b)	1/25 (4%)	1/25 (4%)	2/25 (8%)	1/25 (4%)		
POLY-3 RATE (c)	1/38.56	1/37.00	2/39.22	1/37.21		
POLY-3 PERCENT (g)	2.6%	2.7%	5.1%	2.7%		
TERMINAL (d)	1/15 (7%)	1/15 (7%)	1/21 (5%)	1/16 (6%)		
FIRST INCIDENCE	730 (T)	730 (T)	609	730 (T)		
STATISTICAL TESTS						
POLY 3	P=0.647N	P=0.752	P=0.506	P=0.754		
POLY 1.5	P=0.642N	P=0.756	P=0.503	P=0.758		
POLY 6	P=0.647	P=0.748	P=0.517	P=0.749		
RAO-SCOTT	P=0.618N	P=0.708	P=0.478	P=0.710		
LITTER C-A/FISHERS	P=0.642N	P=0.755	P=0.500	P=0.755		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Stomach, Forestomach Ulcer					
LESION RATES					
OVERALL (a)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	1/25 (4%)	2/25 (8%)	0/25 (0%)	
POLY-3 RATE (c)	0/38.56	1/37.34	3/39.77	0/37.21	
POLY-3 PERCENT (g)	0%	2.7%	7.5%	0%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE		637	606		
STATISTICAL TESTS					
POLY 3	P=0.514N	P=0.494	P=0.123	(e)	
POLY 1.5	P=0.505N	P=0.497	P=0.121	(e)	
POLY 6	P=0.523N	P=0.491	P=0.131	(e)	
RAO-SCOTT	P=0.561N	P=0.629	P=0.272	(e)	
LITTER C-A/FISHERS	P=0.515N	P=0.500	P=0.245	(e)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Stomach, Forestomach: Ep Hyperplasia	ithelium					
LESION RATES						
OVERALL (a)	1/50 (2%)	6/50 (12%)	5/50 (10%)	7/50 (14%)		
LITTERS (b)	1/25 (4%)	5/25 (20%)	5/25 (20%)	7/25 (28%)		
POLY-3 RATE (c)	1/38.61	6/38.37	5/40.05	7/38.56		
POLY-3 PERCENT (g)	2.6%	15.6%	12.5%	18.2%		
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	3/16 (19%)		
FIRST INCIDENCE	718	575	435	449		
STATISTICAL TESTS						
POLY 3	P=0.088	P=0.052	P=0.108	P=0.028*		
POLY 1.5	P=0.092	P=0.054	P=0.105	P=0.029*		
POLY 6	P=0.084	P=0.052	P=0.117	P=0.026*		
RAO-SCOTT	P=0.106	P=0.067	P=0.124	P=0.040*		
LITTER C-A/FISHERS	P=0.056	P=0.095	P=0.095	P=0.024*		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Stomach, Glandular Mineral						
LESION RATES						
OVERALL (a)	15/50 (30%)	16/50 (32%)	10/50 (20%)	10/50 (20%)		
LITTERS (b)	12/25 (48%)	13/25 (52%)	8/25 (32%)	9/25 (36%)		
POLY-3 RATE (c)	15/43.13	16/42.49	10/43.34	10/40.27		
POLY-3 PERCENT (g)	34.8%	37.7%	23.1%	24.8%		
TERMINAL (d)	0/15 (0%)	2/15 (13%)	0/21 (0%)	1/16 (6%)		
FIRST INCIDENCE	538	488	402	502		
STATISTICAL TESTS						
POLY 3	P=0.133N	P=0.479	P=0.165N	P=0.223N		
POLY 1.5	P=0.117N	P=0.491	P=0.166N	P=0.197N		
POLY 6	P=0.159N	P=0.469	P=0.161N	P=0.262N		
RAO-SCOTT	P=0.153N	P=0.480	P=0.185N	P=0.239N		
LITTER C-A/FISHERS	P=0.181N	P=0.500	P=0.193N	P=0.284N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Testis Polyarteritis Nodosa						
LESION RATES						
OVERALL (a)	24/50 (48%)	25/50 (50%)	24/50 (48%)	23/50 (46%)		
LITTERS (b)	20/25 (80%)	18/25 (72%)	19/25 (76%)	16/25 (64%)		
POLY-3 RATE (c)	24/43.23	25/42.44	24/42.93	23/42.46		
POLY-3 PERCENT (g)	55.5%	58.9%	55.9%	54.2%		
TERMINAL (d)	6/15 (40%)	8/15 (53%)	10/21 (48%)	7/16 (44%)		
FIRST INCIDENCE	562	475	413	442		
STATISTICAL TESTS						
POLY 3	P=0.434N	P=0.459	P=0.574	P=0.538N		
POLY 1.5	P=0.417N	P=0.484	P=0.583	P=0.510N		
POLY 6	P=0.452N	P=0.429	P=0.582	P=0.568N		
RAO-SCOTT	P=0.432N	P=0.453	P=0.562	P=0.528N		
LITTER C-A/FISHERS	P=0.164N	P=0.371N	P=0.500N	P=0.173N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Males					
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male		
Testis: Bilateral, Germinal E	<b>Epithelium</b>					
Degeneration						
LESION RATES						
OVERALL (a)	14/50 (28%)	21/50 (42%)	19/50 (38%)	10/50 (20%)		
LITTERS (b)	11/25 (44%)	16/25 (64%)	14/25 (56%)	9/25 (36%)		
POLY-3 RATE (c)	14/41.56	21/43.34	19/42.44	10/39.91		
POLY-3 PERCENT (g)	33.7%	48.5%	44.8%	25.1%		
TERMINAL (d)	2/15 (13%)	3/15 (20%)	5/21 (24%)	2/16 (13%)		
FIRST INCIDENCE	562	553	413	520		
STATISTICAL TESTS						
POLY 3	P=0.065N	P=0.116	P=0.202	P=0.267N		
POLY 1.5	P=0.055N	P=0.108	P=0.201	P=0.251N		
POLY 6	P=0.084N	P=0.143	P=0.224	P=0.287N		
RAO-SCOTT	P=0.085N	P=0.142	P=0.225	P=0.284N		
LITTER C-A/FISHERS	P=0.117N	P=0.128	P=0.286	P=0.387N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Testis: Germinal Epithelium Degeneration	1				
LESION RATES					
OVERALL (a)	26/50 (52%)	26/50 (52%)	25/50 (50%)	26/50 (52%)	
LITTERS (b)	19/25 (76%)	19/25 (76%)	18/25 (72%)	18/25 (72%)	
POLY-3 RATE (c)	26/43.33	26/44.31	25/44.14	26/43.65	
POLY-3 PERCENT (g)	60%	58.7%	56.6%	59.6%	
TERMINAL (d)	7/15 (47%)	6/15 (40%)	8/21 (38%)	7/16 (44%)	
FIRST INCIDENCE	562	475	402	449	
STATISTICAL TESTS					
POLY 3	P=0.543	P=0.538N	P=0.458N	P=0.573N	
POLY 1.5	P=0.546N	P=0.554N	P=0.466N	P=0.563N	
POLY 6	P=0.518	P=0.501N	P=0.434N	P=0.585N	
RAO-SCOTT	P=0.539	P=0.533N	P=0.460N	P=0.564N	
LITTER C-A/FISHERS	P=0.434N	P=0.629	P=0.500N	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Testis: Interstitial Cell Hyperplasia					
LESION RATES					
OVERALL (a)	1/50 (2%)	2/50 (4%)	2/50 (4%)	1/50 (2%)	
LITTERS (b)	1/25 (4%)	2/25 (8%)	2/25 (8%)	1/25 (4%)	
POLY-3 RATE (c)	1/38.66	2/37.00	2/39.01	1/37.21	
POLY-3 PERCENT (g)	2.6%	5.4%	5.1%	2.7%	
TERMINAL (d)	0/15 (0%)	2/15 (13%)	1/21 (5%)	1/16 (6%)	
FIRST INCIDENCE	704	730 (T)	677	730 (T)	
STATISTICAL TESTS					
POLY 3	P=0.533N	P=0.485	P=0.503	P=0.753	
POLY 1.5	P=0.526N	P=0.492	P=0.502	P=0.757	
POLY 6	P=0.541N	P=0.476	P=0.512	P=0.748	
RAO-SCOTT	P=0.508N	P=0.456	P=0.478	P=0.711	
LITTER C-A/FISHERS	P=0.522N	P=0.500	P=0.500	P=0.755	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Thymus Atrophy					
LESION RATES					
OVERALL (a)	43/46 (93%)	41/48 (85%)	44/46 (96%)	40/49 (82%)	
LITTERS (b)	25/25 (100%)	23/25 (92%)	25/25 (100%)	23/25 (92%)	
POLY-3 RATE (c)	43/44.63	41/46.65	44/45.60	40/48.54	
POLY-3 PERCENT (g)	96.3%	87.9%	96.5%	82.4%	
TERMINAL (d)	13/14 (93%)	12/15 (80%)	18/19 (95%)	9/16 (56%)	
FIRST INCIDENCE	354	274	402	434	
STATISTICAL TESTS					
POLY 3	P=0.026N*	P=0.118N	P=0.714	P=0.029N*	
POLY 1.5	P=0.037N*	P=0.112N	P=0.683	P=0.034N*	
POLY 6	P=0.017N*	P=0.143N	P=0.734	P=0.026N*	
RAO-SCOTT	P=0.081N	P=0.229N	P=0.744	P=0.090N	
LITTER C-A/FISHERS	P=0.285N	P=0.245N	P=1.000	P=0.245N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Thymus Ectopic Parathyroid Gland					
LESION RATES					
OVERALL (a)	2/46 (4%)	1/48 (2%)	2/46 (4%)	0/49 (0%)	
LITTERS (b)	2/25 (8%)	1/25 (4%)	2/25 (8%)	0/25 (0%)	
POLY-3 RATE (c)	2/36.10	1/35.59	2/35.58	0/36.43	
POLY-3 PERCENT (g)	5.5%	2.8%	5.6%	0%	
TERMINAL (d)	0/14 (0%)	0/15 (0%)	1/19 (5%)	0/16 (0%)	
FIRST INCIDENCE	599	680	621		
STATISTICAL TESTS					
POLY 3	P=0.206N	P=0.505N	P=0.690	P=0.234N	
POLY 1.5	P=0.203N	P=0.495N	P=0.692	P=0.228N	
POLY 6	P=0.211N	P=0.516N	P=0.694	P=0.242N	
RAO-SCOTT	P=0.226N	P=0.496N	P=0.669	P=0.252N	
LITTER C-A/FISHERS	P=0.208N	P=0.500N	P=0.695	P=0.245N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Thymus Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	2/46 (4%)	1/48 (2%)	1/46 (2%)	0/49 (0%)	
LITTERS (b)	2/25 (8%)	1/25 (4%)	1/25 (4%)	0/25 (0%)	
POLY-3 RATE (c)	2/36.15	1/35.40	1/35.66	0/36.43	
POLY-3 PERCENT (g)	5.5%	2.8%	2.8%	0%	
TERMINAL (d)	0/14 (0%)	1/15 (7%)	0/19 (0%)	0/16 (0%)	
FIRST INCIDENCE	616	730 (T)	595		
STATISTICAL TESTS					
POLY 3	P=0.188N	P=0.507N	P=0.505N	P=0.234N	
POLY 1.5	P=0.187N	P=0.496N	P=0.502N	P=0.228N	
POLY 6	P=0.190N	P=0.522N	P=0.503N	P=0.243N	
RAO-SCOTT	P=0.211N	P=0.498N	P=0.501N	P=0.252N	
LITTER C-A/FISHERS	P=0.191N	P=0.500N	P=0.500N	P=0.245N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Thyroid Gland: C-Cell Hyperplasia					
LESION RATES					
OVERALL (a)	9/50 (18%)	10/50 (20%)	9/50 (18%)	6/50 (12%)	
LITTERS (b)	7/25 (28%)	8/25 (32%)	9/25 (36%)	6/25 (24%)	
POLY-3 RATE (c)	9/39.90	10/38.75	9/39.70	6/38.55	
POLY-3 PERCENT (g)	22.6%	25.8%	22.7%	15.6%	
TERMINAL (d)	3/15 (20%)	4/15 (27%)	5/21 (24%)	2/16 (13%)	
FIRST INCIDENCE	618	559	592	620	
STATISTICAL TESTS					
POLY 3	P=0.193N	P=0.470	P=0.602	P=0.307N	
POLY 1.5	P=0.187N	P=0.485	P=0.603	P=0.295N	
POLY 6	P=0.200N	P=0.458	P=0.602N	P=0.318N	
RAO-SCOTT	P=0.211N	P=0.467	P=0.588	P=0.317N	
LITTER C-A/FISHERS	P=0.365N	P=0.500	P=0.381	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Tooth: Dentine Degeneration					
LESION RATES					
OVERALL (a)	0/0 (0%)	2/3 (67%)	0/0 (0%)	0/0 (0%)	
LITTERS (b)	0/0 (0%)	2/2 (100%)	0/0 (0%)	0/0 (0%)	
POLY-3 RATE (c)	0/0.00	2/2.44	0/0.00	0/0.00	
POLY-3 PERCENT (g)	0%	82.2%	0%	0%	
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)	
FIRST INCIDENCE		637			
STATISTICAL TESTS					
POLY 3	(e)	(e)	(e)	(e)	
POLY 1.5	(e)	(e)	(e)	(e)	
POLY 6	(e)	(e)	(e)	(e)	
RAO-SCOTT	(e)	(e)	(e)	(e)	
LITTER C-A/FISHERS	(e)	(e)	(e)	(e)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Males		
DOSE	0 mg/kg male	75 mg/kg male	250 mg/kg male	750 mg/kg male	
Urinary Bladder Inflammation Chronic					
LESION RATES					
OVERALL (a)	4/50 (8%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	
LITTERS (b)	4/25 (16%)	2/25 (8%)	0/25 (0%)	1/25 (4%)	
POLY-3 RATE (c)	4/39.87	2/37.28	0/38.80	1/37.23	
POLY-3 PERCENT (g)	10%	5.4%	0%	2.7%	
TERMINAL (d)	0/15 (0%)	0/15 (0%)	0/21 (0%)	0/16 (0%)	
FIRST INCIDENCE	577	676		725	
STATISTICAL TESTS					
POLY 3	P=0.167N	P=0.367N	P=0.063N	P=0.198N	
POLY 1.5	P=0.166N	P=0.353N	P=0.061N	P=0.188N	
POLY 6	P=0.168N	P=0.386N	P=0.062N	P=0.213N	
RAO-SCOTT	P=0.201N	P=0.379N	P=0.090N	P=0.224N	
LITTER C-A/FISHERS	P=0.163N	P=0.334N	P=0.055N	P=0.174N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Adrenal Cortex Angiectasis				
LESION RATES				
OVERALL (a)	5/50 (10%)	2/50 (4%)	3/50 (6%)	3/48 (6%)
LITTERS (b)	5/25 (20%)	2/25 (8%)	2/25 (8%)	3/25 (12%)
POLY-3 RATE (c)	5/41.89	2/39.18	3/42.83	3/34.39
POLY-3 PERCENT (g)	11.9%	5.1%	7%	8.7%
TERMINAL (d)	4/28 (14%)	2/24 (8%)	3/29 (10%)	3/20 (15%)
FIRST INCIDENCE	715	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS				
POLY 3	P=0.543N	P=0.242N	P=0.343N	P=0.468N
POLY 1.5	P=0.522N	P=0.235N	P=0.350N	P=0.434N
POLY 6	P=0.573N	P=0.249N	P=0.336N	P=0.517N
RAO-SCOTT	P=0.547N	P=0.259N	P=0.359N	P=0.460N
LITTER C-A/FISHERS	P=0.469N	P=0.209N	P=0.209N	P=0.351N

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Adrenal Cortex Degeneration Cystic				
LESION RATES				
OVERALL (a)	8/50 (16%)	14/50 (28%)	10/50 (20%)	7/48 (15%)
LITTERS (b)	7/25 (28%)	11/25 (44%)	8/25 (32%)	6/25 (24%)
POLY-3 RATE (c)	8/42.39	14/41.57	10/43.31	7/36.32
POLY-3 PERCENT (g)	18.9%	33.7%	23.1%	19.3%
TERMINAL (d)	5/28 (18%)	8/24 (33%)	8/29 (28%)	2/20 (10%)
FIRST INCIDENCE	655	332	608	551
STATISTICAL TESTS				
POLY 3	P=0.315N	P=0.094	P=0.415	P=0.596
POLY 1.5	P=0.281N	P=0.099	P=0.407	P=0.597N
POLY 6	P=0.360N	P=0.088	P=0.422	P=0.555
RAO-SCOTT	P=0.318N	P=0.118	P=0.424	P=0.583
LITTER C-A/FISHERS	P=0.226N	P=0.189	P=0.500	P=0.500N

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Adrenal Cortex Extramedullary Hematopoie	esis					
LESION RATES						
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/48 (0%)		
LITTERS (b)	0/25 (0%)	2/25 (8%)	0/25 (0%)	0/25 (0%)		
POLY-3 RATE (c)	0/41.83	2/40.41	0/42.83	0/34.39		
POLY-3 PERCENT (g)	0%	5%	0%	0%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)		
FIRST INCIDENCE		482				
STATISTICAL TESTS						
POLY 3	P=0.398N	P=0.229	(e)	(e)		
POLY 1.5	P=0.392N	P=0.231	(e)	(e)		
POLY 6	P=0.403N	P=0.229	(e)	(e)		
RAO-SCOTT	P=0.468N	P=0.366	(e)	(e)		
LITTER C-A/FISHERS	P=0.368N	P=0.245	(e)	(e)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Adrenal Cortex Hyperplasia Focal				
LESION RATES				
OVERALL (a)	3/50 (6%)	2/50 (4%)	4/50 (8%)	5/48 (10%)
LITTERS (b)	3/25 (12%)	2/25 (8%)	4/25 (16%)	5/25 (20%)
POLY-3 RATE (c)	3/42.51	2/39.26	4/42.96	5/35.74
POLY-3 PERCENT (g)	7.1%	5.1%	9.3%	14%
TERMINAL (d)	2/28 (7%)	0/24 (0%)	3/29 (10%)	2/20 (10%)
FIRST INCIDENCE	499	712	697	551
STATISTICAL TESTS				
POLY 3	P=0.140	P=0.536N	P=0.506	P=0.264
POLY 1.5	P=0.155	P=0.525N	P=0.502	P=0.288
POLY 6	P=0.123	P=0.546N	P=0.510	P=0.235
RAO-SCOTT	P=0.135	P=0.516N	P=0.496	P=0.256
LITTER C-A/FISHERS	P=0.191	P=0.500N	P=0.500	P=0.351

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Adrenal Cortex Hypertrophy Focal				
LESION RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/48 (0%)
LITTERS (b)	1/25 (4%)	0/25 (0%)	2/25 (8%)	0/25 (0%)
POLY-3 RATE (c)	1/41.83	0/39.18	2/42.84	0/34.39
POLY-3 PERCENT (g)	2.4%	0%	4.7%	0%
TERMINAL (d)	1/28 (4%)	0/24 (0%)	1/29 (3%)	0/20 (0%)
FIRST INCIDENCE	729 (T)		726	
STATISTICAL TESTS				
POLY 3	P=0.505N	P=0.513N	P=0.508	P=0.539N
POLY 1.5	P=0.489N	P=0.509N	P=0.504	P=0.527N
POLY 6	P=0.529N	P=0.516N	P=0.513	P=0.555N
RAO-SCOTT	P=0.502N	P=0.557N	P=0.545	P=0.559N
LITTER C-A/FISHERS	P=0.455N	P=0.500N	P=0.500	P=0.500N

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Adrenal Cortex Necrosis					
LESION RATES					
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	2/48 (4%)	
LITTERS (b)	0/25 (0%)	2/25 (8%)	1/25 (4%)	2/25 (8%)	
POLY-3 RATE (c)	0/41.83	2/39.90	1/42.89	2/35.24	
POLY-3 PERCENT (g)	0%	5%	2.3%	5.7%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)	
FIRST INCIDENCE		512	715	540	
STATISTICAL TESTS					
POLY 3	P=0.259	P=0.226	P=0.505	P=0.200	
POLY 1.5	P=0.275	P=0.229	P=0.503	P=0.210	
POLY 6	P=0.240	P=0.225	P=0.508	P=0.188	
RAO-SCOTT	P=0.286	P=0.274	P=0.546	P=0.238	
LITTER C-A/FISHERS	P=0.315	P=0.245	P=0.500	P=0.245	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Adrenal Cortex Thrombus						
LESION RATES						
OVERALL (a)	2/50 (4%)	1/50 (2%)	1/50 (2%)	1/48 (2%)		
LITTERS (b)	2/25 (8%)	1/25 (4%)	1/25 (4%)	1/25 (4%)		
POLY-3 RATE (c)	2/41.83	1/39.18	1/42.83	1/34.39		
POLY-3 PERCENT (g)	4.8%	2.6%	2.3%	2.9%		
TERMINAL (d)	2/28 (7%)	1/24 (4%)	1/29 (3%)	1/20 (5%)		
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	729 (T)		
STATISTICAL TESTS						
POLY 3	P=0.532N	P=0.523N	P=0.492N	P=0.568N		
POLY 1.5	P=0.521N	P=0.516N	P=0.496N	P=0.547N		
POLY 6	P=0.545N	P=0.529N	P=0.487N	P=0.595N		
RAO-SCOTT	P=0.517N	P=0.501N	P=0.481N	P=0.534N		
LITTER C-A/FISHERS	P=0.488N	P=0.500N	P=0.500N	P=0.500N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Adrenal Cortex: Bilateral Degeneration Cystic				
LESION RATES				
OVERALL (a)	2/50 (4%)	3/50 (6%)	1/50 (2%)	0/48 (0%)
LITTERS (b)	2/25 (8%)	3/25 (12%)	1/25 (4%)	0/25 (0%)
POLY-3 RATE (c)	2/41.89	3/39.18	1/42.89	0/34.39
POLY-3 PERCENT (g)	4.8%	7.7%	2.3%	0%
TERMINAL (d)	1/28 (4%)	3/24 (13%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE	715	729 (T)	715	
STATISTICAL TESTS				
POLY 3	P=0.131N	P=0.469	P=0.492N	P=0.283N
POLY 1.5	P=0.123N	P=0.479	P=0.496N	P=0.269N
POLY 6	P=0.142N	P=0.461	P=0.487N	P=0.303N
RAO-SCOTT	P=0.150N	P=0.479	P=0.511N	P=0.302N
LITTER C-A/FISHERS	P=0.101N	P=0.500	P=0.500N	P=0.245N

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Adrenal Cortex: Bilateral Hyperplasia Focal					
LESION RATES					
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/48 (2%)	
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	1/25 (4%)	
POLY-3 RATE (c)	1/41.83	0/39.18	0/42.83	1/34.73	
POLY-3 PERCENT (g)	2.4%	0%	0%	2.9%	
TERMINAL (d)	1/28 (4%)	0/24 (0%)	0/29 (0%)	0/20 (0%)	
FIRST INCIDENCE	729 (T)			635	
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Adrenal Medulla Hyperplasia Focal				
LESION RATES				
OVERALL (a)	5/50 (10%)	7/50 (14%)	12/50 (24%)	8/48 (17%)
LITTERS (b)	5/25 (20%)	7/25 (28%)	9/25 (36%)	8/25 (32%)
POLY-3 RATE (c)	5/41.83	7/40.14	12/44.10	8/35.57
POLY-3 PERCENT (g)	12%	17.4%	27.2%	22.5%
TERMINAL (d)	5/28 (18%)	4/24 (17%)	6/29 (21%)	4/20 (20%)
FIRST INCIDENCE	729 (T)	615	608	586
STATISTICAL TESTS				
POLY 3	P=0.186	P=0.348	P=0.063	P=0.175
POLY 1.5	P=0.222	P=0.354	P=0.058	P=0.200
POLY 6	P=0.147	P=0.349	P=0.072	P=0.147
RAO-SCOTT	P=0.212	P=0.359	P=0.086	P=0.193
LITTER C-A/FISHERS	P=0.291	P=0.371	P=0.173	P=0.260

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Adrenal Medulla: Bilateral Hyperplasia Focal				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	3/48 (6%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	3/25 (12%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	3/34.87
POLY-3 PERCENT (g)	0%	0%	0%	8.6%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	2/20 (10%)
FIRST INCIDENCE				586
STATISTICAL TESTS				
POLY 3	P=0.006**	(e)	(e)	P=0.088
POLY 1.5	P=0.006**	(e)	(e)	P=0.097
POLY 6	P=0.005**	(e)	(e)	P=0.079
RAO-SCOTT	P=0.037*	(e)	(e)	P=0.209
LITTER C-A/FISHERS	P=0.008**	(e)	(e)	P=0.117

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Blood Vessel				
Mineral				
LESION RATES				
OVERALL (a)	0/49 (0%)	0/48 (0%)	2/48 (4%)	1/43 (2%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	1/25 (4%)
POLY-3 RATE (c)	0/40.83	0/37.18	2/41.13	1/30.19
POLY-3 PERCENT (g)	0%	0%	4.9%	3.3%
TERMINAL (d)	0/27 (0%)	0/22 (0%)	1/28 (4%)	1/17 (6%)
FIRST INCIDENCE			704	729 (T)
STATISTICAL TESTS				
POLY 3	P=0.254	(e)	P=0.238	P=0.440
POLY 1.5	P=0.278	(e)	P=0.236	P=0.453
POLY 6	P=0.221	(e)	P=0.242	P=0.423
RAO-SCOTT	P=0.318	(e)	P=0.335	P=0.492
LITTER C-A/FISHERS	P=0.349	(e)	P=0.245	P=0.500

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Blood Vessel: Aorta Dilation						
LESION RATES						
OVERALL (a)	0/49 (0%)	0/48 (0%)	0/48 (0%)	0/43 (0%)		
LITTERS (b)	0/45 (0%)	0/25 (0%)	0/45 (0%)	0/25 (0%)		
POLY-3 RATE (c)	0/40.83	0/37.18	0/41.03	0/30.19		
POLY-3 PERCENT (g)	0%	0%	0%	0%		
TERMINAL (d)	0/27 (0%)	0/22 (0%)	0/28 (0%)	0/17 (0%)		
FIRST INCIDENCE						
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)		
POLY 1.5	(n)	(n)	(n)	(n)		
POLY 6	(n)	(n)	(n)	(n)		
RAO-SCOTT	(n)	(n)	(n)	(n)		
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Bone Marrow Hemorrhage						
LESION RATES						
OVERALL (a)	10/50 (20%)	0/50 (0%)	0/50 (0%)	9/50 (18%)		
LITTERS (b)	8/25 (32%)	0/25 (0%)	0/25 (0%)	9/25 (36%)		
POLY-3 RATE (c)	10/42.67	0/39.18	0/42.83	9/39.36		
POLY-3 PERCENT (g)	23.4%	0%	0%	22.9%		
TERMINAL (d)	6/28 (21%)	0/24 (0%)	0/29 (0%)	2/20 (10%)		
FIRST INCIDENCE	556			475		
STATISTICAL TESTS						
POLY 3	P=0.114	P<0.001N**	P<0.001N**	P=0.580N		
POLY 1.5	P=0.115	P<0.001N**	P<0.001N**	P=0.553N		
POLY 6	P=0.112	P<0.001N**	P<0.001N**	P=0.592		
RAO-SCOTT	P=0.142	P=0.007N**	P=0.005N**	P=0.578N		
LITTER C-A/FISHERS	P=0.039*	P=0.002N**	P=0.002N**	P=0.500		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Bone Marrow Hypercellularity				
LESION RATES				
OVERALL (a)	31/50 (62%)	31/50 (62%)	34/50 (68%)	42/50 (84%)
LITTERS (b)	19/25 (76%)	22/25 (88%)	22/25 (88%)	24/25 (96%)
POLY-3 RATE (c)	31/48.66	31/47.80	34/48.26	42/48.67
POLY-3 PERCENT (g)	63.7%	64.9%	70.5%	86.3%
TERMINAL (d)	12/28 (43%)	10/24 (42%)	19/29 (66%)	14/20 (70%)
FIRST INCIDENCE	499	302	360	430
STATISTICAL TESTS				
POLY 3	P=0.003**	P=0.538	P=0.310	P=0.008**
POLY 1.5	P=0.003**	P=0.551	P=0.326	P=0.007**
POLY 6	P=0.004**	P=0.523	P=0.279	P=0.009**
RAO-SCOTT	P=0.008**	P=0.545	P=0.334	P=0.016*
LITTER C-A/FISHERS	P=0.061	P=0.232	P=0.232	P=0.049*

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Bone Marrow Myelofibrosis				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.85
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Bone Osteopetrosis				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.85
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Brain Gliosis				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	2/36.47
POLY-3 PERCENT (g)	0%	0%	0%	5.5%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				637
STATISTICAL TESTS				
POLY 3	P=0.036*	(e)	(e)	P=0.207
POLY 1.5	P=0.037*	(e)	(e)	P=0.218
POLY 6	P=0.033*	(e)	(e)	P=0.194
RAO-SCOTT	P=0.113	(e)	(e)	P=0.352
LITTER C-A/FISHERS	P=0.041*	(e)	(e)	P=0.245

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Brain Hemorrhage				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.85
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Brain Necrosis				
LESION RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	1/42.45	0/39.18	0/42.83	0/35.85
POLY-3 PERCENT (g)	2.4%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE	530			
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Eye: Cornea Inflammation Acute				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	1/36.22
POLY-3 PERCENT (g)	0%	0%	0%	2.8%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				625
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Eye: Cornea Inflammation Chronic					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.85	
POLY-3 PERCENT (g)	0%	0%	0%	0%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)	
FIRST INCIDENCE					
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

**Date Report Requested:** 10/09/2020 **Time Report Requested:** 09:53:31 **First Dose M/F:** 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Eye: Retina Degeneration				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.85
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

**Species/Strain:** RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Harderian Gland					
Atrophy					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.85	
POLY-3 PERCENT (g)	0%	0%	0%	0%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)	
FIRST INCIDENCE					
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Heart Cardiomyopathy				
LESION RATES				
OVERALL (a)	4/50 (8%)	9/50 (18%)	13/50 (26%)	9/48 (19%)
LITTERS (b)	4/25 (16%)	8/25 (32%)	12/25 (48%)	7/25 (28%)
POLY-3 RATE (c)	4/43.02	9/40.91	13/45.36	9/36.60
POLY-3 PERCENT (g)	9.3%	22%	28.7%	24.6%
TERMINAL (d)	1/28 (4%)	5/24 (21%)	5/29 (17%)	4/20 (20%)
FIRST INCIDENCE	521	512	538	532
STATISTICAL TESTS				
POLY 3	P=0.129	P=0.094	P=0.018*	P=0.060
POLY 1.5	P=0.159	P=0.099	P=0.016*	P=0.073
POLY 6	P=0.097	P=0.090	P=0.022*	P=0.047*
RAO-SCOTT	P=0.155	P=0.112	P=0.030*	P=0.075
LITTER C-A/FISHERS	P=0.421	P=0.160	P=0.016*	P=0.248

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Heart Mineral					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/48 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)	
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/34.57	
POLY-3 PERCENT (g)	0%	0%	0%	0%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)	
FIRST INCIDENCE					
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Heart					
Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/48 (2%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	1/25 (4%)	
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	1/34.57	
POLY-3 PERCENT (g)	0%	0%	0%	2.9%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	1/20 (5%)	
FIRST INCIDENCE				729 (T)	
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Heart: Atrium Thrombus				
LESION RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/48 (0%)
LITTERS (b)	0/25 (0%)	1/25 (4%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	1/39.39	0/42.83	0/34.57
POLY-3 PERCENT (g)	0%	2.5%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE		672		
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Heart: Perivascular Infiltration Cellular Lympho	cyte					
LESION RATES						
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/48 (0%)		
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)		
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/34.57		
POLY-3 PERCENT (g)	0%	0%	0%	0%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)		
FIRST INCIDENCE						
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)		
POLY 1.5	(n)	(n)	(n)	(n)		
POLY 6	(n)	(n)	(n)	(n)		
RAO-SCOTT	(n)	(n)	(n)	(n)		
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)		

Test Type: CHRONIC Route: GAVAGE

**Species/Strain:** RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Intestine Large, Cecum Erosion				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/49 (2%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	1/35.61
POLY-3 PERCENT (g)	0%	0%	0%	2.8%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				600
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Intestine Large, Cecum Inflammation Chronic						
LESION RATES						
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)		
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)		
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.17		
POLY-3 PERCENT (g)	0%	0%	0%	0%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)		
FIRST INCIDENCE						
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)		
POLY 1.5	(n)	(n)	(n)	(n)		
POLY 6	(n)	(n)	(n)	(n)		
RAO-SCOTT	(n)	(n)	(n)	(n)		
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Intestine Large, Cecum Mineral				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.17
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Intestine Large, Cecum Polyarteritis Nodosa				
LESION RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/49 (2%)
LITTERS (b)	0/25 (0%)	1/25 (4%)	1/25 (4%)	1/25 (4%)
POLY-3 RATE (c)	0/41.83	1/39.18	1/42.83	1/35.17
POLY-3 PERCENT (g)	0%	2.6%	2.3%	2.8%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	1/29 (3%)	1/20 (5%)
FIRST INCIDENCE		729 (T)	729 (T)	729 (T)
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Intestine Large, Cecum Ulcer				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.17
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Intestine Large, Colon Parasite Metazoan				
LESION RATES				
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
LITTERS (b)	1/25 (4%)	1/25 (4%)	1/25 (4%)	1/25 (4%)
POLY-3 RATE (c)	1/42.45	1/39.62	1/42.89	1/35.85
POLY-3 PERCENT (g)	2.4%	2.5%	2.3%	2.8%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	1/20 (5%)
FIRST INCIDENCE	530	600	715	729 (T)
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Intestine Large, Colon Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	1/25 (4%)	1/25 (4%)	0/25 (0%)	
POLY-3 RATE (c)	0/41.83	1/39.18	1/42.83	0/35.85	
POLY-3 PERCENT (g)	0%	2.6%	2.3%	0%	
TERMINAL (d)	0/28 (0%)	1/24 (4%)	1/29 (3%)	0/20 (0%)	
FIRST INCIDENCE		729 (T)	729 (T)		
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Intestine Large, Colon: Lym Hyperplasia	phoid Tissue			
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	2/42.83	0/35.85
POLY-3 PERCENT (g)	0%	0%	4.7%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	2/29 (7%)	0/20 (0%)
FIRST INCIDENCE			729 (T)	
STATISTICAL TESTS				
POLY 3	P=0.702	(e)	P=0.242	(e)
POLY 1.5	P=0.723N	(e)	P=0.240	(e)
POLY 6	P=0.662	(e)	P=0.245	(e)
RAO-SCOTT	P=0.713N	(e)	P=0.374	(e)
LITTER C-A/FISHERS	P=0.698N	(e)	P=0.245	(e)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Intestine Large, Rectum Parasite Metazoan					
LESION RATES					
OVERALL (a)	1/50 (2%)	4/50 (8%)	3/50 (6%)	3/50 (6%)	
LITTERS (b)	1/25 (4%)	4/25 (16%)	3/25 (12%)	3/25 (12%)	
POLY-3 RATE (c)	1/41.83	4/39.90	3/42.89	3/36.37	
POLY-3 PERCENT (g)	2.4%	10%	7%	8.3%	
TERMINAL (d)	1/28 (4%)	2/24 (8%)	2/29 (7%)	2/20 (10%)	
FIRST INCIDENCE	729 (T)	482	715	571	
STATISTICAL TESTS					
POLY 3	P=0.380	P=0.163	P=0.314	P=0.256	
POLY 1.5	P=0.410	P=0.168	P=0.310	P=0.274	
POLY 6	P=0.341	P=0.160	P=0.318	P=0.233	
RAO-SCOTT	P=0.378	P=0.167	P=0.312	P=0.244	
LITTER C-A/FISHERS	P=0.459	P=0.174	P=0.305	P=0.305	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Intestine Large, Rectum Polyarteritis Nodosa				
LESION RATES				
OVERALL (a)	0/50 (0%)	2/50 (4%)	2/50 (4%)	3/50 (6%)
LITTERS (b)	0/25 (0%)	2/25 (8%)	2/25 (8%)	3/25 (12%)
POLY-3 RATE (c)	0/41.83	2/39.18	2/43.03	3/35.85
POLY-3 PERCENT (g)	0%	5.1%	4.7%	8.4%
TERMINAL (d)	0/28 (0%)	2/24 (8%)	1/29 (3%)	3/20 (15%)
FIRST INCIDENCE		729 (T)	676	729 (T)
STATISTICAL TESTS				
POLY 3	P=0.115	P=0.222	P=0.243	P=0.093
POLY 1.5	P=0.130	P=0.227	P=0.240	P=0.102
POLY 6	P=0.097	P=0.218	P=0.247	P=0.081
RAO-SCOTT	P=0.136	P=0.250	P=0.281	P=0.116
LITTER C-A/FISHERS	P=0.151	P=0.245	P=0.245	P=0.117

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Intestine Small, Duodenum Polyarteritis Nodosa						
LESION RATES						
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)		
LITTERS (b)	0/25 (0%)	0/25 (0%)	1/25 (4%)	0/25 (0%)		
POLY-3 RATE (c)	0/41.83	0/39.18	1/42.83	0/35.85		
POLY-3 PERCENT (g)	0%	0%	2.3%	0%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	1/29 (3%)	0/20 (0%)		
FIRST INCIDENCE			729 (T)			
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)		
POLY 1.5	(n)	(n)	(n)	(n)		
POLY 6	(n)	(n)	(n)	(n)		
RAO-SCOTT	(n)	(n)	(n)	(n)		
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Intestine Small, Jejunum Polyarteritis Nodosa				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	1/35.85
POLY-3 PERCENT (g)	0%	0%	0%	2.8%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	1/20 (5%)
FIRST INCIDENCE				729 (T)
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Islets, Pancreatic Hyperplasia				
LESION RATES				
OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	1/49 (2%)
LITTERS (b)	2/25 (8%)	2/25 (8%)	1/25 (4%)	1/25 (4%)
POLY-3 RATE (c)	2/42.02	2/39.86	1/42.83	1/35.88
POLY-3 PERCENT (g)	4.8%	5%	2.3%	2.8%
TERMINAL (d)	1/28 (4%)	1/24 (4%)	1/29 (3%)	0/20 (0%)
FIRST INCIDENCE	681	499	729 (T)	629
STATISTICAL TESTS				
POLY 3	P=0.423N	P=0.675	P=0.493N	P=0.555N
POLY 1.5	P=0.411N	P=0.680	P=0.496N	P=0.537N
POLY 6	P=0.439N	P=0.671	P=0.491N	P=0.579N
RAO-SCOTT	P=0.412N	P=0.654	P=0.485N	P=0.526N
LITTER C-A/FISHERS	P=0.380N	P=0.695	P=0.500N	P=0.500N

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Kidney				
Calculus Micro Observation	Only			
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/34.89
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Kidney Hyperplasia Oncocytic				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/34.89
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Kidney Infarct				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/49 (4%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	2/35.50
POLY-3 PERCENT (g)	0%	0%	0%	5.6%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	1/20 (5%)
FIRST INCIDENCE				532
STATISTICAL TESTS				
POLY 3	P=0.034*	(e)	(e)	P=0.202
POLY 1.5	P=0.036*	(e)	(e)	P=0.213
POLY 6	P=0.031*	(e)	(e)	P=0.187
RAO-SCOTT	P=0.106	(e)	(e)	P=0.341
LITTER C-A/FISHERS	P=0.041*	(e)	(e)	P=0.245

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Kidney Inflammation Chronic					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/49 (4%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)	
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	2/36.00	
POLY-3 PERCENT (g)	0%	0%	0%	5.6%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)	
FIRST INCIDENCE				532	
STATISTICAL TESTS					
POLY 3	P=0.034*	(e)	(e)	P=0.205	
POLY 1.5	P=0.036*	(e)	(e)	P=0.215	
POLY 6	P=0.032*	(e)	(e)	P=0.192	
RAO-SCOTT	P=0.107	(e)	(e)	P=0.343	
LITTER C-A/FISHERS	P=0.041*	(e)	(e)	P=0.245	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Kidney Nephropathy Chronic Progre	essive			
LESION RATES				
OVERALL (a)	43/50 (86%)	40/50 (80%)	45/50 (90%)	47/49 (96%)
LITTERS (b)	25/25 (100%)	23/25 (92%)	25/25 (100%)	25/25 (100%)
POLY-3 RATE (c)	43/45.82	40/46.67	45/49.61	47/47.52
POLY-3 PERCENT (g)	93.9%	85.7%	90.7%	98.9%
TERMINAL (d)	28/28 (100%)	23/24 (96%)	26/29 (90%)	20/20 (100%)
FIRST INCIDENCE	536	302	360	430
STATISTICAL TESTS				
POLY 3	P=0.033*	P=0.127N	P=0.415N	P=0.128
POLY 1.5	P=0.017*	P=0.196N	P=0.626N	P=0.064
POLY 6	P=0.082	P=0.070N	P=0.180N	P=0.528
RAO-SCOTT	P=0.085	P=0.210N	P=0.456N	P=0.274
LITTER C-A/FISHERS	P=0.368	P=0.245N	P=1.000	P=1.000

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Kidney Polyarteritis Nodosa						
LESION RATES						
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/49 (4%)		
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)		
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	2/35.18		
POLY-3 PERCENT (g)	0%	0%	0%	5.7%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	1/20 (5%)		
FIRST INCIDENCE				650		
STATISTICAL TESTS						
POLY 3	P=0.033*	(e)	(e)	P=0.200		
POLY 1.5	P=0.035*	(e)	(e)	P=0.212		
POLY 6	P=0.031*	(e)	(e)	P=0.185		
RAO-SCOTT	P=0.108	(e)	(e)	P=0.345		
LITTER C-A/FISHERS	P=0.041*	(e)	(e)	P=0.245		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Kidney, Belvie						
Kidney: Pelvis Dilation						
LESION RATES						
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/49 (2%)		
LITTERS (b)	1/25 (4%)	2/25 (8%)	0/25 (0%)	1/25 (4%)		
POLY-3 RATE (c)	1/41.87	2/39.72	0/42.83	1/34.89		
POLY-3 PERCENT (g)	2.4%	5%	0%	2.9%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	1/20 (5%)		
FIRST INCIDENCE	719	588		729 (T)		
STATISTICAL TESTS						
POLY 3	P=0.584N	P=0.482	P=0.495N	P=0.719		
POLY 1.5	P=0.576N	P=0.486	P=0.498N	P=0.734		
POLY 6	P=0.592N	P=0.479	P=0.493N	P=0.697		
RAO-SCOTT	P=0.579N	P=0.492	P=0.524N	P=0.693		
LITTER C-A/FISHERS	P=0.552N	P=0.500	P=0.500N	P=0.755		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Kidney: Pelvis Inflammation Chronic				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/49 (2%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	1/35.57
POLY-3 PERCENT (g)	0%	0%	0%	2.8%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				501
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Kidney: Renal Tubule Accumulation, Hyaline Drop	olet			
LESION RATES				
OVERALL (a)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/49 (2%)
LITTERS (b)	2/25 (8%)	0/25 (0%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (c)	2/42.94	0/39.18	0/42.83	1/35.28
POLY-3 PERCENT (g)	4.7%	0%	0%	2.8%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE	499			617
STATISTICAL TESTS				
POLY 3	P=0.650N	P=0.258N	P=0.237N	P=0.568N
POLY 1.5	P=0.653N	P=0.251N	P=0.238N	P=0.545N
POLY 6	P=0.646N	P=0.265N	P=0.238N	P=0.598N
RAO-SCOTT	P=0.673N	P=0.338N	P=0.331N	P=0.584N
LITTER C-A/FISHERS	P=0.651N	P=0.245N	P=0.245N	P=0.500N

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Kidney: Renal Tubule				
Apoptosis				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	4/49 (8%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	4/25 (16%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	4/37.30
POLY-3 PERCENT (g)	0%	0%	0%	10.7%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				475
STATISTICAL TESTS				
POLY 3	P<0.001**	(e)	(e)	P=0.046*
POLY 1.5	P<0.001**	(e)	(e)	P=0.050*
POLY 6	P<0.001**	(e)	(e)	P=0.041*
RAO-SCOTT	P=0.012*	(e)	(e)	P=0.125
LITTER C-A/FISHERS	P=0.002**	(e)	(e)	P=0.055

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Kidney: Renal Tubule Cyst				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/49 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	1/25 (4%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	1/43.09	0/34.89
POLY-3 PERCENT (g)	0%	0%	2.3%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE			658	
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver				
Angiectasis				
LESION RATES				
OVERALL (a)	2/50 (4%)	1/50 (2%)	2/50 (4%)	3/48 (6%)
LITTERS (b)	2/25 (8%)	1/25 (4%)	2/25 (8%)	3/25 (12%)
POLY-3 RATE (c)	2/42.51	1/39.18	2/42.83	3/34.57
POLY-3 PERCENT (g)	4.7%	2.6%	4.7%	8.7%
TERMINAL (d)	1/28 (4%)	1/24 (4%)	2/29 (7%)	3/20 (15%)
FIRST INCIDENCE	499	729 (T)	729 (T)	729 (T)
STATISTICAL TESTS				
POLY 3	P=0.235	P=0.528N	P=0.692N	P=0.406
POLY 1.5	P=0.253	P=0.519N	P=0.693N	P=0.435
POLY 6	P=0.209	P=0.537N	P=0.690N	P=0.368
RAO-SCOTT	P=0.224	P=0.513N	P=0.678N	P=0.393
LITTER C-A/FISHERS	P=0.296	P=0.500N	P=0.695	P=0.500

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Liver Basophilic Focus						
LESION RATES						
OVERALL (a)	4/50 (8%)	3/50 (6%)	2/50 (4%)	0/48 (0%)		
LITTERS (b)	4/25 (16%)	3/25 (12%)	2/25 (8%)	0/25 (0%)		
POLY-3 RATE (c)	4/42.52	3/39.18	2/42.83	0/34.57		
POLY-3 PERCENT (g)	9.4%	7.7%	4.7%	0%		
TERMINAL (d)	1/28 (4%)	3/24 (13%)	2/29 (7%)	0/20 (0%)		
FIRST INCIDENCE	597	729 (T)	729 (T)			
STATISTICAL TESTS						
POLY 3	P=0.063N	P=0.545N	P=0.333N	P=0.090N		
POLY 1.5	P=0.057N	P=0.530N	P=0.335N	P=0.080N		
POLY 6	P=0.072N	P=0.561N	P=0.333N	P=0.108N		
RAO-SCOTT	P=0.071N	P=0.536N	P=0.347N	P=0.102N		
LITTER C-A/FISHERS	P=0.042N*	P=0.500N	P=0.334N	P=0.055N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver Clear Cell Focus				
LESION RATES				
OVERALL (a)	15/50 (30%)	6/50 (12%)	8/50 (16%)	4/48 (8%)
LITTERS (b)	11/25 (44%)	5/25 (20%)	7/25 (28%)	4/25 (16%)
POLY-3 RATE (c)	15/42.22	6/39.19	8/43.73	4/34.57
POLY-3 PERCENT (g)	35.5%	15.3%	18.3%	11.6%
TERMINAL (d)	14/28 (50%)	5/24 (21%)	6/29 (21%)	4/20 (20%)
FIRST INCIDENCE	618	726	488	729 (T)
STATISTICAL TESTS				
POLY 3	P=0.034N*	P=0.030N*	P=0.055N	P=0.013N*
POLY 1.5	P=0.028N*	P=0.028N*	P=0.064N	P=0.009N**
POLY 6	P=0.043N*	P=0.031N*	P=0.047N*	P=0.021N*
RAO-SCOTT	P=0.057N	P=0.053N	P=0.086N	P=0.028N*
LITTER C-A/FISHERS	P=0.074N	P=0.064N	P=0.189N	P=0.031N*

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver				
Degeneration Cystic				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/48 (4%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	2/34.57
POLY-3 PERCENT (g)	0%	0%	0%	5.8%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	2/20 (10%)
FIRST INCIDENCE				729 (T)
STATISTICAL TESTS				
POLY 3	P=0.032*	(e)	(e)	P=0.196
POLY 1.5	P=0.034*	(e)	(e)	P=0.208
POLY 6	P=0.030*	(e)	(e)	P=0.181
RAO-SCOTT	P=0.103	(e)	(e)	P=0.337
LITTER C-A/FISHERS	P=0.041*	(e)	(e)	P=0.245

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver Eosinophilic Focus				
LESION RATES				
OVERALL (a)	10/50 (20%)	5/50 (10%)	10/50 (20%)	13/48 (27%)
LITTERS (b)	9/25 (36%)	5/25 (20%)	8/25 (32%)	11/25 (44%)
POLY-3 RATE (c)	10/43.00	5/40.17	10/44.18	13/35.91
POLY-3 PERCENT (g)	23.3%	12.5%	22.6%	36.2%
TERMINAL (d)	6/28 (21%)	3/24 (13%)	6/29 (21%)	10/20 (50%)
FIRST INCIDENCE	521	302	538	551
STATISTICAL TESTS				
POLY 3	P=0.035*	P=0.158N	P=0.574N	P=0.152
POLY 1.5	P=0.046*	P=0.148N	P=0.585N	P=0.196
POLY 6	P=0.023*	P=0.170N	P=0.560N	P=0.103
RAO-SCOTT	P=0.039*	P=0.173N	P=0.569N	P=0.167
LITTER C-A/FISHERS	P=0.137	P=0.173N	P=0.500N	P=0.387

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver Extramedullary Hematopoie	esis			
LESION RATES				
OVERALL (a)	3/50 (6%)	5/50 (10%)	8/50 (16%)	5/48 (10%)
LITTERS (b)	3/25 (12%)	5/25 (20%)	7/25 (28%)	5/25 (20%)
POLY-3 RATE (c)	3/43.59	5/40.37	8/43.50	5/36.62
POLY-3 PERCENT (g)	6.9%	12.4%	18.4%	13.7%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	5/29 (17%)	0/20 (0%)
FIRST INCIDENCE	499	386	538	478
STATISTICAL TESTS				
POLY 3	P=0.299	P=0.314	P=0.096	P=0.264
POLY 1.5	P=0.334	P=0.328	P=0.097	P=0.289
POLY 6	P=0.255	P=0.301	P=0.094	P=0.234
RAO-SCOTT	P=0.317	P=0.318	P=0.111	P=0.266
LITTER C-A/FISHERS	P=0.415	P=0.351	P=0.145	P=0.351

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver Hepatodiaphragmatic Nodule	)			
LESION RATES				
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/48 (2%)
LITTERS (b)	0/25 (0%)	1/25 (4%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (c)	0/41.83	2/39.38	0/42.83	1/34.77
POLY-3 PERCENT (g)	0%	5.1%	0%	2.9%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE		675		675
STATISTICAL TESTS				
POLY 3	P=0.569	P=0.223	(e)	P=0.463
POLY 1.5	P=0.585	P=0.227	(e)	P=0.474
POLY 6	P=0.550	P=0.221	(e)	P=0.449
RAO-SCOTT	P=0.637	P=0.451	(e)	P=0.664
LITTER C-A/FISHERS	P=0.463	P=0.500	(e)	P=0.500

Test Type: CHRONIC Route: GAVAGE

**Species/Strain:** RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver Mixed Cell Focus				
LESION RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/48 (0%)
LITTERS (b)	0/25 (0%)	1/25 (4%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	1/39.18	0/42.83	0/34.57
POLY-3 PERCENT (g)	0%	2.6%	0%	0%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE		729 (T)		
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver Necrosis				
LESION RATES				
OVERALL (a)	4/50 (8%)	10/50 (20%)	3/50 (6%)	9/48 (19%)
LITTERS (b)	4/25 (16%)	8/25 (32%)	3/25 (12%)	9/25 (36%)
POLY-3 RATE (c)	4/43.29	10/42.70	3/43.81	9/38.15
POLY-3 PERCENT (g)	9.2%	23.4%	6.9%	23.6%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	1/29 (3%)	0/20 (0%)
FIRST INCIDENCE	504	482	360	475
STATISTICAL TESTS				
POLY 3	P=0.154	P=0.066	P=0.493N	P=0.070
POLY 1.5	P=0.169	P=0.066	P=0.495N	P=0.079
POLY 6	P=0.139	P=0.069	P=0.495N	P=0.060
RAO-SCOTT	P=0.173	P=0.091	P=0.503N	P=0.093
LITTER C-A/FISHERS	P=0.131	P=0.160	P=0.500N	P=0.098

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver Pigment				
LESION RATES				
OVERALL (a)	0/50 (0%)	3/50 (6%)	0/50 (0%)	0/48 (0%)
LITTERS (b)	0/25 (0%)	3/25 (12%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	3/39.31	0/42.83	0/34.57
POLY-3 PERCENT (g)	0%	7.6%	0%	0%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE		712		
STATISTICAL TESTS				
POLY 3	P=0.291N	P=0.107	(e)	(e)
POLY 1.5	P=0.281N	P=0.111	(e)	(e)
POLY 6	P=0.302N	P=0.105	(e)	(e)
RAO-SCOTT	P=0.356N	P=0.210	(e)	(e)
LITTER C-A/FISHERS	P=0.253N	P=0.117	(e)	(e)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Liver Polyarteritis Nodosa						
LESION RATES						
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/48 (0%)		
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)		
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/34.57		
POLY-3 PERCENT (g)	0%	0%	0%	0%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)		
FIRST INCIDENCE						
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)		
POLY 1.5	(n)	(n)	(n)	(n)		
POLY 6	(n)	(n)	(n)	(n)		
RAO-SCOTT	(n)	(n)	(n)	(n)		
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver: Bile Duct Cyst				
LESION RATES				
OVERALL (a)	4/50 (8%)	7/50 (14%)	10/50 (20%)	8/48 (17%)
LITTERS (b)	4/25 (16%)	7/25 (28%)	9/25 (36%)	7/25 (28%)
POLY-3 RATE (c)	4/42.28	7/39.18	10/44.29	8/35.86
POLY-3 PERCENT (g)	9.5%	17.9%	22.6%	22.3%
TERMINAL (d)	3/28 (11%)	7/24 (29%)	4/29 (14%)	6/20 (30%)
FIRST INCIDENCE	597	729 (T)	643	478
STATISTICAL TESTS				
POLY 3	P=0.141	P=0.216	P=0.084	P=0.103
POLY 1.5	P=0.169	P=0.230	P=0.078	P=0.122
POLY 6	P=0.106	P=0.201	P=0.094	P=0.079
RAO-SCOTT	P=0.155	P=0.221	P=0.097	P=0.111
LITTER C-A/FISHERS	P=0.345	P=0.248	P=0.098	P=0.248

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Liver: Bile Duct Dilation				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	3/50 (6%)	1/48 (2%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	3/25 (12%)	1/25 (4%)
POLY-3 RATE (c)	0/41.83	0/39.18	3/42.83	1/34.57
POLY-3 PERCENT (g)	0%	0%	7%	2.9%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	3/29 (10%)	1/20 (5%)
FIRST INCIDENCE			729 (T)	729 (T)
STATISTICAL TESTS				
POLY 3	P=0.299	(e)	P=0.122	P=0.462
POLY 1.5	P=0.326	(e)	P=0.121	P=0.473
POLY 6	P=0.260	(e)	P=0.124	P=0.446
RAO-SCOTT	P=0.359	(e)	P=0.198	P=0.506
LITTER C-A/FISHERS	P=0.380	(e)	P=0.117	P=0.500

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Liver: Bile Duct Hyperplasia						
LESION RATES						
OVERALL (a)	11/50 (22%)	14/50 (28%)	14/50 (28%)	9/48 (19%)		
LITTERS (b)	9/25 (36%)	11/25 (44%)	12/25 (48%)	8/25 (32%)		
POLY-3 RATE (c)	11/42.87	14/40.32	14/44.46	9/36.44		
POLY-3 PERCENT (g)	25.7%	34.7%	31.5%	24.7%		
TERMINAL (d)	7/28 (25%)	9/24 (38%)	10/29 (35%)	4/20 (20%)		
FIRST INCIDENCE	556	614	538	478		
STATISTICAL TESTS						
POLY 3	P=0.373N	P=0.251	P=0.356	P=0.564N		
POLY 1.5	P=0.329N	P=0.272	P=0.341	P=0.519N		
POLY 6	P=0.439N	P=0.236	P=0.374	P=0.584		
RAO-SCOTT	P=0.357N	P=0.255	P=0.358	P=0.548N		
LITTER C-A/FISHERS	P=0.319N	P=0.387	P=0.284	P=0.500N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lung Hemorrhage				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/48 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/34.57
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lung Infiltration Cellular Histiocyt	re			
LESION RATES				
OVERALL (a)	39/50 (78%)	38/50 (76%)	45/50 (90%)	46/48 (96%)
LITTERS (b)	22/25 (88%)	22/25 (88%)	24/25 (96%)	25/25 (100%)
POLY-3 RATE (c)	39/48.31	38/46.24	45/49.69	46/46.61
POLY-3 PERCENT (g)	80.7%	82.2%	90.6%	98.7%
TERMINAL (d)	21/28 (75%)	22/24 (92%)	25/29 (86%)	20/20 (100%)
FIRST INCIDENCE	499	332	360	430
STATISTICAL TESTS				
POLY 3	P=0.002**	P=0.534	P=0.128	P=0.003**
POLY 1.5	P<0.001**	P=0.591	P=0.108	P=0.003**
POLY 6	P=0.002**	P=0.464	P=0.153	P=0.003**
RAO-SCOTT	P=0.012*	P=0.559	P=0.205	P=0.023*
LITTER C-A/FISHERS	P=0.061	P=0.666	P=0.305	P=0.117

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lung Inflammation Acute				
LESION RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/48 (4%)
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	2/25 (8%)
POLY-3 RATE (c)	1/41.83	0/39.18	0/42.83	2/35.54
POLY-3 PERCENT (g)	2.4%	0%	0%	5.6%
TERMINAL (d)	1/28 (4%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE	729 (T)			478
STATISTICAL TESTS				
POLY 3	P=0.169	P=0.513N	P=0.495N	P=0.443
POLY 1.5	P=0.173	P=0.509N	P=0.498N	P=0.459
POLY 6	P=0.163	P=0.516N	P=0.493N	P=0.422
RAO-SCOTT	P=0.224	P=0.590N	P=0.594N	P=0.493
LITTER C-A/FISHERS	P=0.187	P=0.500N	P=0.500N	P=0.500

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lung Inflammation Chronic				
LESION RATES				
OVERALL (a)	1/50 (2%)	1/50 (2%)	4/50 (8%)	1/48 (2%)
LITTERS (b)	1/25 (4%)	1/25 (4%)	4/25 (16%)	1/25 (4%)
POLY-3 RATE (c)	1/41.83	1/39.18	4/42.83	1/35.07
POLY-3 PERCENT (g)	2.4%	2.6%	9.3%	2.9%
TERMINAL (d)	1/28 (4%)	1/24 (4%)	4/29 (14%)	0/20 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	578
STATISTICAL TESTS				
POLY 3	P=0.573	P=0.746	P=0.185	P=0.720
POLY 1.5	P=0.600	P=0.750	P=0.182	P=0.732
POLY 6	P=0.531	P=0.743	P=0.188	P=0.704
RAO-SCOTT	P=0.579	P=0.728	P=0.220	P=0.696
LITTER C-A/FISHERS	P=0.602N	P=0.755	P=0.174	P=0.755

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lung Inflammation Granulomatou	us			
LESION RATES				
OVERALL (a)	7/50 (14%)	6/50 (12%)	16/50 (32%)	10/48 (21%)
LITTERS (b)	7/25 (28%)	6/25 (24%)	13/25 (52%)	8/25 (32%)
POLY-3 RATE (c)	7/42.82	6/40.28	16/43.99	10/35.97
POLY-3 PERCENT (g)	16.4%	14.9%	36.4%	27.8%
TERMINAL (d)	5/28 (18%)	3/24 (13%)	11/29 (38%)	6/20 (30%)
FIRST INCIDENCE	536	614	638	571
STATISTICAL TESTS				
POLY 3	P=0.098	P=0.548N	P=0.027*	P=0.168
POLY 1.5	P=0.129	P=0.535N	P=0.027*	P=0.201
POLY 6	P=0.065	P=0.555N	P=0.029*	P=0.130
RAO-SCOTT	P=0.125	P=0.542N	P=0.044*	P=0.186
LITTER C-A/FISHERS	P=0.411	P=0.500N	P=0.074	P=0.500

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Lung						
Mineral						
LESION RATES						
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/48 (0%)		
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)		
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/34.57		
POLY-3 PERCENT (g)	0%	0%	0%	0%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)		
FIRST INCIDENCE						
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)		
POLY 1.5	(n)	(n)	(n)	(n)		
POLY 6	(n)	(n)	(n)	(n)		
RAO-SCOTT	(n)	(n)	(n)	(n)		
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lung Squamous Metaplasia				
LESION RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	4/48 (8%)
LITTERS (b)	0/25 (0%)	1/25 (4%)	0/25 (0%)	4/25 (16%)
POLY-3 RATE (c)	0/41.83	1/39.18	0/42.83	4/35.55
POLY-3 PERCENT (g)	0%	2.6%	0%	11.3%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	0/29 (0%)	1/20 (5%)
FIRST INCIDENCE		729 (T)		629
STATISTICAL TESTS				
POLY 3	P=0.007**	P=0.487	(e)	P=0.041*
POLY 1.5	P=0.007**	P=0.491	(e)	P=0.046*
POLY 6	P=0.006**	P=0.484	(e)	P=0.036*
RAO-SCOTT	P=0.025*	P=0.573	(e)	P=0.100
LITTER C-A/FISHERS	P=0.010**	P=0.500	(e)	P=0.055

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lung Thrombus				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/48 (4%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	2/35.59
POLY-3 PERCENT (g)	0%	0%	0%	5.6%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				509
STATISTICAL TESTS				
POLY 3	P=0.033*	(e)	(e)	P=0.202
POLY 1.5	P=0.035*	(e)	(e)	P=0.211
POLY 6	P=0.031*	(e)	(e)	P=0.190
RAO-SCOTT	P=0.103	(e)	(e)	P=0.337
LITTER C-A/FISHERS	P=0.041*	(e)	(e)	P=0.245

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lung: Alveolar Epithelium Hyperplasia				
LESION RATES				
OVERALL (a)	4/50 (8%)	2/50 (4%)	1/50 (2%)	1/48 (2%)
LITTERS (b)	4/25 (16%)	2/25 (8%)	1/25 (4%)	1/25 (4%)
POLY-3 RATE (c)	4/42.86	2/40.03	1/43.14	1/34.77
POLY-3 PERCENT (g)	9.3%	5%	2.3%	2.9%
TERMINAL (d)	1/28 (4%)	1/24 (4%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE	597	386	644	675
STATISTICAL TESTS				
POLY 3	P=0.212N	P=0.369N	P=0.176N	P=0.248N
POLY 1.5	P=0.203N	P=0.358N	P=0.177N	P=0.225N
POLY 6	P=0.224N	P=0.382N	P=0.175N	P=0.283N
RAO-SCOTT	P=0.226N	P=0.370N	P=0.193N	P=0.248N
LITTER C-A/FISHERS	P=0.172N	P=0.334N	P=0.174N	P=0.174N

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lymph Node, Mandibular Ectasia				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/34.89
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Lymph Node, Mandibular Infiltration Cellular Plasma	Cell				
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/49 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	0/25 (0%)	
POLY-3 RATE (c)	0/41.83	0/39.18	2/43.25	0/34.89	
POLY-3 PERCENT (g)	0%	0%	4.6%	0%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	1/29 (3%)	0/20 (0%)	
FIRST INCIDENCE			608		
STATISTICAL TESTS					
POLY 3	P=0.695	(e)	P=0.244	(e)	
POLY 1.5	P=0.722	(e)	P=0.241	(e)	
POLY 6	P=0.651	(e)	P=0.249	(e)	
RAO-SCOTT	P=0.715N	(e)	P=0.371	(e)	
LITTER C-A/FISHERS	P=0.698N	(e)	P=0.245	(e)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lymph Node, Mandibular Inflammation				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/34.89
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Lymph Node: Renal Ectasia				
LESION RATES				
OVERALL (a)	0/0 (0%)	0/6 (0%)	0/0 (0%)	0/3 (0%)
LITTERS (b)	0/0 (0%)	0/5 (0%)	0/0 (0%)	0/2 (0%)
POLY-3 RATE (c)	0/0.00	0/4.36	0/0.00	0/1.58
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/0 (0%)	0/1 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Mammary Gland Galactocele				
LESION RATES				
OVERALL (a)	2/50 (4%)	0/50 (0%)	4/50 (8%)	2/49 (4%)
LITTERS (b)	2/25 (8%)	0/25 (0%)	4/25 (16%)	2/25 (8%)
POLY-3 RATE (c)	2/41.97	0/39.18	4/43.26	2/36.06
POLY-3 PERCENT (g)	4.8%	0%	9.3%	5.6%
TERMINAL (d)	1/28 (4%)	0/24 (0%)	3/29 (10%)	1/20 (5%)
FIRST INCIDENCE	693		605	675
STATISTICAL TESTS				
POLY 3	P=0.384	P=0.252N	P=0.351	P=0.639
POLY 1.5	P=0.413	P=0.248N	P=0.344	P=0.660
POLY 6	P=0.344	P=0.257N	P=0.358	P=0.608
RAO-SCOTT	P=0.384	P=0.260N	P=0.362	P=0.615
LITTER C-A/FISHERS	P=0.450	P=0.245N	P=0.334	P=0.695

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Mammary Gland Hyperplasia				
LESION RATES				
OVERALL (a)	13/50 (26%)	8/50 (16%)	4/50 (8%)	2/49 (4%)
LITTERS (b)	11/25 (44%)	8/25 (32%)	3/25 (12%)	2/25 (8%)
POLY-3 RATE (c)	13/43.27	8/39.58	4/42.83	2/36.10
POLY-3 PERCENT (g)	30.1%	20.2%	9.3%	5.5%
TERMINAL (d)	8/28 (29%)	7/24 (29%)	4/29 (14%)	1/20 (5%)
FIRST INCIDENCE	504	615	729 (T)	661
STATISTICAL TESTS				
POLY 3	P=0.004N**	P=0.217N	P=0.014N*	P=0.005N**
POLY 1.5	P=0.003N**	P=0.198N	P=0.014N*	P=0.003N**
POLY 6	P=0.005N**	P=0.239N	P=0.013N*	P=0.009N**
RAO-SCOTT	P=0.007N**	P=0.229N	P=0.022N*	P=0.009N**
LITTER C-A/FISHERS	P=0.004N**	P=0.280N	P=0.013N*	P=0.004N**

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Nose Foreign Body						
LESION RATES						
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	2/50 (4%)		
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	2/25 (8%)		
POLY-3 RATE (c)	0/41.83	0/39.18	2/43.43	2/36.58		
POLY-3 PERCENT (g)	0%	0%	4.6%	5.5%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	1/29 (3%)	0/20 (0%)		
FIRST INCIDENCE			538	586		
STATISTICAL TESTS						
POLY 3	P=0.097	(e)	P=0.245	P=0.208		
POLY 1.5	P=0.106	(e)	P=0.242	P=0.219		
POLY 6	P=0.085	(e)	P=0.250	P=0.195		
RAO-SCOTT	P=0.151	(e)	P=0.342	P=0.283		
LITTER C-A/FISHERS	P=0.119	(e)	P=0.245	P=0.245		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Nose Inflammation						
LESION RATES						
OVERALL (a)	0/50 (0%)	2/50 (4%)	1/50 (2%)	1/50 (2%)		
LITTERS (b)	0/25 (0%)	2/25 (8%)	1/25 (4%)	1/25 (4%)		
POLY-3 RATE (c)	0/41.83	2/39.70	1/42.83	1/36.10		
POLY-3 PERCENT (g)	0%	5%	2.3%	2.8%		
TERMINAL (d)	0/28 (0%)	1/24 (4%)	1/29 (3%)	0/20 (0%)		
FIRST INCIDENCE		570	729 (T)	661		
STATISTICAL TESTS						
POLY 3	P=0.561	P=0.225	P=0.505	P=0.471		
POLY 1.5	P=0.583	P=0.228	P=0.502	P=0.482		
POLY 6	P=0.532	P=0.223	P=0.507	P=0.456		
RAO-SCOTT	P=0.560	P=0.260	P=0.532	P=0.467		
LITTER C-A/FISHERS	P=0.620	P=0.245	P=0.500	P=0.500		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Nose Inflammation Acute				
LESION RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	2/50 (4%)	3/50 (6%)
LITTERS (b)	1/25 (4%)	0/25 (0%)	2/25 (8%)	3/25 (12%)
POLY-3 RATE (c)	1/42.50	0/39.18	2/43.63	3/35.89
POLY-3 PERCENT (g)	2.4%	0%	4.6%	8.4%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	2/20 (10%)
FIRST INCIDENCE	504		538	719
STATISTICAL TESTS				
POLY 3	P=0.080	P=0.516N	P=0.509	P=0.247
POLY 1.5	P=0.089	P=0.511N	P=0.505	P=0.269
POLY 6	P=0.068	P=0.521N	P=0.515	P=0.219
RAO-SCOTT	P=0.100	P=0.539N	P=0.535	P=0.276
LITTER C-A/FISHERS	P=0.101	P=0.500N	P=0.500	P=0.305

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Nose Inflammation Chronic				
LESION RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	4/50 (8%)
LITTERS (b)	1/25 (4%)	0/25 (0%)	1/25 (4%)	4/25 (16%)
POLY-3 RATE (c)	1/41.83	0/39.18	1/42.83	4/36.96
POLY-3 PERCENT (g)	2.4%	0%	2.3%	10.8%
TERMINAL (d)	1/28 (4%)	0/24 (0%)	1/29 (3%)	1/20 (5%)
FIRST INCIDENCE	729 (T)		729 (T)	571
STATISTICAL TESTS				
POLY 3	P=0.019*	P=0.513N	P=0.756N	P=0.142
POLY 1.5	P=0.021*	P=0.509N	P=0.758N	P=0.155
POLY 6	P=0.017*	P=0.516N	P=0.753N	P=0.127
RAO-SCOTT	P=0.037*	P=0.555N	P=0.759N	P=0.192
LITTER C-A/FISHERS	P=0.023*	P=0.500N	P=0.755	P=0.174

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Nose: Nasolacrimal Duct Inflammation Chronic				
LESION RATES				
OVERALL (a)	4/50 (8%)	0/50 (0%)	2/50 (4%)	5/50 (10%)
LITTERS (b)	4/25 (16%)	0/25 (0%)	2/25 (8%)	4/25 (16%)
POLY-3 RATE (c)	4/42.93	0/39.18	2/43.09	5/37.90
POLY-3 PERCENT (g)	9.3%	0%	4.6%	13.2%
TERMINAL (d)	2/28 (7%)	0/24 (0%)	1/29 (3%)	1/20 (5%)
FIRST INCIDENCE	504		658	540
STATISTICAL TESTS				
POLY 3	P=0.117	P=0.072N	P=0.335N	P=0.422
POLY 1.5	P=0.123	P=0.068N	P=0.337N	P=0.450
POLY 6	P=0.109	P=0.076N	P=0.333N	P=0.386
RAO-SCOTT	P=0.149	P=0.127N	P=0.390N	P=0.451
LITTER C-A/FISHERS	P=0.261	P=0.055N	P=0.334N	P=0.649

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Nose: Respiratory Epithelium Hyperplasia				
LESION RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	2/50 (4%)	1/50 (2%)
LITTERS (b)	0/25 (0%)	1/25 (4%)	2/25 (8%)	1/25 (4%)
POLY-3 RATE (c)	0/41.83	1/39.18	2/43.76	1/36.46
POLY-3 PERCENT (g)	0%	2.6%	4.6%	2.7%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE		729 (T)	538	532
STATISTICAL TESTS				
POLY 3	P=0.440	P=0.487	P=0.247	P=0.473
POLY 1.5	P=0.463	P=0.491	P=0.243	P=0.483
POLY 6	P=0.406	P=0.484	P=0.253	P=0.459
RAO-SCOTT	P=0.449	P=0.485	P=0.279	P=0.458
LITTER C-A/FISHERS	P=0.500	P=0.500	P=0.245	P=0.500

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Ovary Atrophy				
LESION RATES				
OVERALL (a)	32/50 (64%)	39/50 (78%)	38/50 (76%)	47/49 (96%)
LITTERS (b)	21/25 (84%)	23/25 (92%)	24/25 (96%)	25/25 (100%)
POLY-3 RATE (c)	32/44.76	39/47.12	38/46.77	47/47.50
POLY-3 PERCENT (g)	71.5%	82.8%	81.3%	99%
TERMINAL (d)	22/28 (79%)	19/24 (79%)	24/29 (83%)	20/20 (100%)
FIRST INCIDENCE	536	302	538	430
STATISTICAL TESTS				
POLY 3	P<0.001**	P=0.133	P=0.180	P<0.001**
POLY 1.5	P<0.001**	P=0.106	P=0.152	P<0.001**
POLY 6	P<0.001**	P=0.198	P=0.236	P<0.001**
RAO-SCOTT	P<0.001**	P=0.173	P=0.220	P<0.001**
LITTER C-A/FISHERS	P=0.049*	P=0.334	P=0.174	P=0.055

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Ovary Cyst						
LESION RATES						
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	4/49 (8%)		
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	4/25 (16%)		
POLY-3 RATE (c)	1/42.22	0/39.18	0/42.83	4/35.62		
POLY-3 PERCENT (g)	2.4%	0%	0%	11.2%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	2/20 (10%)		
FIRST INCIDENCE	618			600		
STATISTICAL TESTS						
POLY 3	P=0.010**	P=0.515N	P=0.497N	P=0.130		
POLY 1.5	P=0.011*	P=0.510N	P=0.498N	P=0.145		
POLY 6	P=0.009**	P=0.520N	P=0.496N	P=0.112		
RAO-SCOTT	P=0.026*	P=0.578N	P=0.582N	P=0.193		
LITTER C-A/FISHERS	P=0.014*	P=0.500N	P=0.500N	P=0.174		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Ovary: Bursa					
Cyst					
LESION RATES					
OVERALL (a)	1/50 (2%)	2/50 (4%)	2/50 (4%)	0/49 (0%)	
LITTERS (b)	1/25 (4%)	2/25 (8%)	2/25 (8%)	0/25 (0%)	
POLY-3 RATE (c)	1/41.92	2/39.24	2/43.06	0/34.89	
POLY-3 PERCENT (g)	2.4%	5.1%	4.6%	0%	
TERMINAL (d)	0/28 (0%)	1/24 (4%)	1/29 (3%)	0/20 (0%)	
FIRST INCIDENCE	708	712	668		
STATISTICAL TESTS					
POLY 3	P=0.300N	P=0.477	P=0.509	P=0.536N	
POLY 1.5	P=0.281N	P=0.484	P=0.505	P=0.524N	
POLY 6	P=0.327N	P=0.471	P=0.515	P=0.554N	
RAO-SCOTT	P=0.293N	P=0.485	P=0.524	P=0.522N	
LITTER C-A/FISHERS	P=0.243N	P=0.500	P=0.500	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Ovary: Follicle Cyst				
LESION RATES				
OVERALL (a)	13/50 (26%)	7/50 (14%)	9/50 (18%)	6/49 (12%)
LITTERS (b)	11/25 (44%)	7/25 (28%)	8/25 (32%)	6/25 (24%)
POLY-3 RATE (c)	13/44.98	7/40.15	9/44.38	6/36.12
POLY-3 PERCENT (g)	28.9%	17.4%	20.3%	16.6%
TERMINAL (d)	5/28 (18%)	4/24 (17%)	6/29 (21%)	3/20 (15%)
FIRST INCIDENCE	499	588	538	578
STATISTICAL TESTS				
POLY 3	P=0.200N	P=0.160N	P=0.241N	P=0.150N
POLY 1.5	P=0.167N	P=0.139N	P=0.239N	P=0.112N
POLY 6	P=0.251N	P=0.184N	P=0.246N	P=0.212N
RAO-SCOTT	P=0.213N	P=0.168N	P=0.250N	P=0.154N
LITTER C-A/FISHERS	P=0.166N	P=0.189N	P=0.280N	P=0.116N

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Ovary: Periovarian Tissue Cyst					
LESION RATES					
OVERALL (a)	1/50 (2%)	3/50 (6%)	3/50 (6%)	0/49 (0%)	
LITTERS (b)	1/25 (4%)	3/25 (12%)	3/25 (12%)	0/25 (0%)	
POLY-3 RATE (c)	1/41.83	3/39.82	3/43.16	0/34.89	
POLY-3 PERCENT (g)	2.4%	7.5%	7%	0%	
TERMINAL (d)	1/28 (4%)	1/24 (4%)	2/29 (7%)	0/20 (0%)	
FIRST INCIDENCE	729 (T)	605	638		
STATISTICAL TESTS					
POLY 3	P=0.257N	P=0.287	P=0.316	P=0.536N	
POLY 1.5	P=0.233N	P=0.291	P=0.311	P=0.524N	
POLY 6	P=0.291N	P=0.285	P=0.322	P=0.553N	
RAO-SCOTT	P=0.252N	P=0.317	P=0.351	P=0.525N	
LITTER C-A/FISHERS	P=0.189N	P=0.305	P=0.305	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Pancreas Polyarteritis Nodosa				
LESION RATES				
OVERALL (a)	1/50 (2%)	2/50 (4%)	1/50 (2%)	3/49 (6%)
LITTERS (b)	1/25 (4%)	2/25 (8%)	1/25 (4%)	3/25 (12%)
POLY-3 RATE (c)	1/41.83	2/39.18	1/42.83	3/35.86
POLY-3 PERCENT (g)	2.4%	5.1%	2.3%	8.4%
TERMINAL (d)	1/28 (4%)	2/24 (8%)	1/29 (3%)	2/20 (10%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	637
STATISTICAL TESTS				
POLY 3	P=0.203	P=0.477	P=0.756N	P=0.251
POLY 1.5	P=0.217	P=0.484	P=0.758N	P=0.268
POLY 6	P=0.186	P=0.471	P=0.753N	P=0.229
RAO-SCOTT	P=0.215	P=0.482	P=0.746N	P=0.269
LITTER C-A/FISHERS	P=0.243	P=0.500	P=0.755	P=0.305

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Pancreas: Acinus Atrophy						
LESION RATES						
OVERALL (a)	3/50 (6%)	2/50 (4%)	0/50 (0%)	2/49 (4%)		
LITTERS (b)	3/25 (12%)	2/25 (8%)	0/25 (0%)	2/25 (8%)		
POLY-3 RATE (c)	3/41.92	2/39.31	0/42.83	2/36.38		
POLY-3 PERCENT (g)	7.2%	5.1%	0%	5.5%		
TERMINAL (d)	2/28 (7%)	0/24 (0%)	0/29 (0%)	0/20 (0%)		
FIRST INCIDENCE	706	712		571		
STATISTICAL TESTS						
POLY 3	P=0.537N	P=0.529N	P=0.114N	P=0.565N		
POLY 1.5	P=0.531N	P=0.521N	P=0.117N	P=0.544N		
POLY 6	P=0.545N	P=0.536N	P=0.112N	P=0.591N		
RAO-SCOTT	P=0.545N	P=0.526N	P=0.145N	P=0.553N		
LITTER C-A/FISHERS	P=0.510N	P=0.500N	P=0.117N	P=0.500N		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Pancreas: Acinus				
Hyperplasia				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.52
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Parathyroid Gland Hyperplasia Diffuse				
LESION RATES				
OVERALL (a)	0/46 (0%)	1/40 (3%)	0/39 (0%)	0/38 (0%)
LITTERS (b)	0/25 (0%)	1/24 (4%)	0/23 (0%)	0/24 (0%)
POLY-3 RATE (c)	0/38.50	1/31.58	0/33.56	0/27.26
POLY-3 PERCENT (g)	0%	3.2%	0%	0%
TERMINAL (d)	0/25 (0%)	0/20 (0%)	0/23 (0%)	0/15 (0%)
FIRST INCIDENCE		672		
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Peripheral Nerve: Axon, Trip Degeneration	geminal			
LESION RATES				
OVERALL (a)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
LITTERS (b)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
POLY-3 RATE (c)	0/0.00	0/0.00	0/0.00	0/0.00
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/0 (0%)	0/0 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Pituitary Gland: Pars Distalis Hyperplasia	:			
LESION RATES				
OVERALL (a)	18/50 (36%)	18/50 (36%)	19/50 (38%)	24/50 (48%)
LITTERS (b)	13/25 (52%)	16/25 (64%)	13/25 (52%)	20/25 (80%)
POLY-3 RATE (c)	18/42.90	18/41.85	19/44.41	24/42.15
POLY-3 PERCENT (g)	42%	43%	42.8%	56.9%
TERMINAL (d)	14/28 (50%)	13/24 (54%)	13/29 (45%)	11/20 (55%)
FIRST INCIDENCE	578	386	608	478
STATISTICAL TESTS				
POLY 3	P=0.072	P=0.550	P=0.556	P=0.113
POLY 1.5	P=0.077	P=0.554	P=0.529	P=0.120
POLY 6	P=0.068	P=0.548	P=0.586N	P=0.108
RAO-SCOTT	P=0.093	P=0.544	P=0.552	P=0.140
LITTER C-A/FISHERS	P=0.037*	P=0.284	P=0.611	P=0.036*

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Skin Cyst Epithelial Inclusion						
LESION RATES						
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)		
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)		
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.85		
POLY-3 PERCENT (g)	0%	0%	0%	0%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)		
FIRST INCIDENCE						
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)		
POLY 1.5	(n)	(n)	(n)	(n)		
POLY 6	(n)	(n)	(n)	(n)		
RAO-SCOTT	(n)	(n)	(n)	(n)		
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Skin Inflammation Chronic					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	1/25 (4%)	0/25 (0%)	
POLY-3 RATE (c)	0/41.83	0/39.18	1/42.84	0/35.85	
POLY-3 PERCENT (g)	0%	0%	2.3%	0%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)	
FIRST INCIDENCE			726		
STATISTICAL TESTS					
POLY 3	(n)	(n)	(n)	(n)	
POLY 1.5	(n)	(n)	(n)	(n)	
POLY 6	(n)	(n)	(n)	(n)	
RAO-SCOTT	(n)	(n)	(n)	(n)	
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Skin				
Ulcer				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.85
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Skin: Epidermis Hyperplasia				
LESION RATES				
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	0/39.18	0/42.83	0/35.85
POLY-3 PERCENT (g)	0%	0%	0%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE				
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Spleen				
Extramedullary Hematopoid	esis			
LESION RATES	47/50 (0.40()	40/50 (000()	47/50 (0.40()	47/40/000/
OVERALL (a)	47/50 (94%)	48/50 (96%)	47/50 (94%)	47/49 (96%)
LITTERS (b)	25/25 (100%)	25/25 (100%)	25/25 (100%)	25/25 (100%)
POLY-3 RATE (c)	47/49.26	48/48.69	47/49.09	47/47.88
POLY-3 PERCENT (g)	95.4%	98.6%	95.8%	98.2%
TERMINAL (d)	28/28 (100%)	24/24 (100%)	29/29 (100%)	20/20 (100%)
FIRST INCIDENCE	499	302	360	4
STATISTICAL TESTS				
POLY 3	P=0.438	P=0.354	P=0.676	P=0.412
POLY 1.5	P=0.471	P=0.391	P=0.673	P=0.451
POLY 6	P=0.395	P=0.350	P=0.668	P=0.381
RAO-SCOTT	P=0.454	P=0.382	P=0.661	P=0.433
LITTER C-A/FISHERS	(e)	P=1.000	P=1.000	P=1.000
	` '			

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Spleen Pigment						
LESION RATES						
OVERALL (a)	35/50 (70%)	34/50 (68%)	37/50 (74%)	21/49 (43%)		
LITTERS (b)	22/25 (88%)	23/25 (92%)	23/25 (92%)	16/25 (64%)		
POLY-3 RATE (c)	35/44.13	34/43.96	37/46.94	21/37.91		
POLY-3 PERCENT (g)	79.3%	77.3%	78.8%	55.4%		
TERMINAL (d)	27/28 (96%)	22/24 (92%)	23/29 (79%)	15/20 (75%)		
FIRST INCIDENCE	524	332	538	498		
STATISTICAL TESTS						
POLY 3	P=0.004N**	P=0.515N	P=0.586N	P=0.009N**		
POLY 1.5	P=0.002N**	P=0.539N	P=0.514	P=0.007N**		
POLY 6	P=0.010N**	P=0.417N	P=0.395N	P=0.012N*		
RAO-SCOTT	P=0.007N**	P=0.507N	P=0.574N	P=0.020N*		
LITTER C-A/FISHERS	P=0.004N**	P=0.500	P=0.500	P=0.048N*		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Spleen: White Pulp						
Atrophy						
LESION RATES						
OVERALL (a)	9/50 (18%)	10/50 (20%)	3/50 (6%)	9/49 (18%)		
LITTERS (b)	9/25 (36%)	10/25 (40%)	3/25 (12%)	9/25 (36%)		
POLY-3 RATE (c)	9/45.00	10/43.11	3/43.58	9/39.87		
POLY-3 PERCENT (g)	20%	23.2%	6.9%	22.6%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)		
FIRST INCIDENCE	504	332	605	430		
STATISTICAL TESTS						
POLY 3	P=0.501	P=0.458	P=0.066N	P=0.491		
POLY 1.5	P=0.527	P=0.468	P=0.063N	P=0.525		
POLY 6	P=0.460	P=0.457	P=0.069N	P=0.441		
RAO-SCOTT	P=0.475	P=0.446	P=0.063N	P=0.475		
LITTER C-A/FISHERS	P=0.550N	P=0.500	P=0.048N*	P=0.616		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Stomach, Forestomach Inflammation Acute				
LESION RATES				
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	1/25 (4%)	1/25 (4%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	1/41.83	1/39.39	0/42.83	0/35.85
POLY-3 PERCENT (g)	2.4%	2.5%	0%	0%
TERMINAL (d)	1/28 (4%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE	729 (T)	672		
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females		
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Stomach, Forestomach Inflammation Chronic					
LESION RATES					
OVERALL (a)	3/50 (6%)	0/50 (0%)	2/50 (4%)	2/50 (4%)	
LITTERS (b)	3/25 (12%)	0/25 (0%)	2/25 (8%)	2/25 (8%)	
POLY-3 RATE (c)	3/42.74	0/39.18	2/43.48	2/36.62	
POLY-3 PERCENT (g)	7%	0%	4.6%	5.5%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)	
FIRST INCIDENCE	606		597	600	
STATISTICAL TESTS					
POLY 3	P=0.530	P=0.134N	P=0.492N	P=0.570N	
POLY 1.5	P=0.546	P=0.129N	P=0.496N	P=0.543N	
POLY 6	P=0.507	P=0.141N	P=0.489N	P=0.605N	
RAO-SCOTT	P=0.501	P=0.154N	P=0.498N	P=0.554N	
LITTER C-A/FISHERS	P=0.570	P=0.117N	P=0.500N	P=0.500N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Stomach, Forestomach Mineral						
LESION RATES						
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	3/50 (6%)		
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	3/25 (12%)		
POLY-3 RATE (c)	1/42.06	0/39.18	0/42.83	3/36.77		
POLY-3 PERCENT (g)	2.4%	0%	0%	8.2%		
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)		
FIRST INCIDENCE	670			600		
STATISTICAL TESTS						
POLY 3	P=0.048*	P=0.514N	P=0.496N	P=0.258		
POLY 1.5	P=0.050*	P=0.510N	P=0.498N	P=0.275		
POLY 6	P=0.045*	P=0.519N	P=0.495N	P=0.237		
RAO-SCOTT	P=0.081	P=0.575N	P=0.579N	P=0.318		
LITTER C-A/FISHERS	P=0.053	P=0.500N	P=0.500N	P=0.305		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Stomach, Forestomach Polyarteritis Nodosa				
LESION RATES				
OVERALL (a)	0/50 (0%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
LITTERS (b)	0/25 (0%)	1/25 (4%)	1/25 (4%)	2/25 (8%)
POLY-3 RATE (c)	0/41.83	1/39.18	1/43.03	2/36.18
POLY-3 PERCENT (g)	0%	2.6%	2.3%	5.5%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	0/29 (0%)	1/20 (5%)
FIRST INCIDENCE		729 (T)	676	637
STATISTICAL TESTS				
POLY 3	P=0.161	P=0.487	P=0.506	P=0.206
POLY 1.5	P=0.174	P=0.491	P=0.503	P=0.217
POLY 6	P=0.146	P=0.484	P=0.509	P=0.191
RAO-SCOTT	P=0.187	P=0.509	P=0.544	P=0.238
LITTER C-A/FISHERS	P=0.191	P=0.500	P=0.500	P=0.245

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Stomach, Forestomach Ulcer				
LESION RATES				
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)
LITTERS (b)	1/25 (4%)	1/25 (4%)	0/25 (0%)	1/25 (4%)
POLY-3 RATE (c)	1/42.22	1/39.39	0/42.83	1/36.29
POLY-3 PERCENT (g)	2.4%	2.5%	0%	2.8%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE	618	672		600
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Stomach, Forestomach: Ep Hyperplasia	ithelium			
LESION RATES				
OVERALL (a)	3/50 (6%)	2/50 (4%)	1/50 (2%)	4/50 (8%)
LITTERS (b)	3/25 (12%)	2/25 (8%)	1/25 (4%)	4/25 (16%)
POLY-3 RATE (c)	3/42.31	2/39.39	1/43.03	4/36.29
POLY-3 PERCENT (g)	7.1%	5.1%	2.3%	11%
TERMINAL (d)	1/28 (4%)	1/24 (4%)	0/29 (0%)	2/20 (10%)
FIRST INCIDENCE	618	672	676	637
STATISTICAL TESTS				
POLY 3	P=0.261	P=0.533N	P=0.299N	P=0.416
POLY 1.5	P=0.277	P=0.523N	P=0.302N	P=0.448
POLY 6	P=0.240	P=0.542N	P=0.296N	P=0.374
RAO-SCOTT	P=0.247	P=0.523N	P=0.314N	P=0.410
LITTER C-A/FISHERS	P=0.299	P=0.500N	P=0.305N	P=0.500

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Stomach, Glandular Mineral				
LESION RATES				
OVERALL (a)	2/50 (4%)	4/50 (8%)	5/50 (10%)	2/50 (4%)
LITTERS (b)	2/25 (8%)	3/25 (12%)	5/25 (20%)	2/25 (8%)
POLY-3 RATE (c)	2/42.06	4/39.86	5/42.83	2/36.48
POLY-3 PERCENT (g)	4.8%	10%	11.7%	5.5%
TERMINAL (d)	1/28 (4%)	3/24 (13%)	5/29 (17%)	0/20 (0%)
FIRST INCIDENCE	670	499	729 (T)	570
STATISTICAL TESTS				
POLY 3	P=0.511N	P=0.312	P=0.222	P=0.642
POLY 1.5	P=0.478N	P=0.319	P=0.220	P=0.662
POLY 6	P=0.557N	P=0.305	P=0.224	P=0.614
RAO-SCOTT	P=0.490N	P=0.337	P=0.258	P=0.626
LITTER C-A/FISHERS	P=0.500N	P=0.500	P=0.209	P=0.695

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Thymus Atrophy				
LESION RATES				
OVERALL (a)	46/49 (94%)	44/49 (90%)	43/48 (90%)	45/48 (94%)
LITTERS (b)	24/25 (96%)	24/25 (96%)	25/25 (100%)	25/25 (100%)
POLY-3 RATE (c)	46/49.00	44/47.42	43/47.30	45/46.41
POLY-3 PERCENT (g)	93.9%	92.8%	90.9%	97%
TERMINAL (d)	25/28 (89%)	20/23 (87%)	24/28 (86%)	20/20 (100%)
FIRST INCIDENCE	499	302	360	430
STATISTICAL TESTS				
POLY 3	P=0.280	P=0.579N	P=0.434N	P=0.407
POLY 1.5	P=0.298	P=0.507N	P=0.400N	P=0.458
POLY 6	P=0.241	P=0.626N	P=0.464N	P=0.335
RAO-SCOTT	P=0.301	P=0.588N	P=0.454N	P=0.432
LITTER C-A/FISHERS	P=0.302	P=0.755	P=0.500	P=0.500

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Thymus Ectopic Parathyroid Gland				
LESION RATES				
OVERALL (a)	0/49 (0%)	0/49 (0%)	0/48 (0%)	2/48 (4%)
LITTERS (b)	0/25 (0%)	0/25 (0%)	0/25 (0%)	2/25 (8%)
POLY-3 RATE (c)	0/41.26	0/38.18	0/40.89	2/34.57
POLY-3 PERCENT (g)	0%	0%	0%	5.8%
TERMINAL (d)	0/28 (0%)	0/23 (0%)	0/28 (0%)	2/20 (10%)
FIRST INCIDENCE				729 (T)
STATISTICAL TESTS				
POLY 3	P=0.034*	(e)	(e)	P=0.199
POLY 1.5	P=0.036*	(e)	(e)	P=0.212
POLY 6	P=0.031*	(e)	(e)	P=0.183
RAO-SCOTT	P=0.098	(e)	(e)	P=0.328
LITTER C-A/FISHERS	P=0.041*	(e)	(e)	P=0.245

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Thymus				
Polyarteritis Nodosa  LESION RATES				
	0/40 (0%)	0/40 (00/)	0/49 (09/)	1/49 /20/)
OVERALL (a) LITTERS (b)	0/49 (0%) 0/25 (0%)	0/49 (0%) 0/25 (0%)	0/48 (0%) 0/25 (0%)	1/48 (2%) 1/25 (4%)
POLY-3 RATE (c)	0/41.26	0/38.18	0/40.89	1/34.57
POLY-3 PERCENT (g)	0%	0%	0%	2.9%
TERMINAL (d)	0/28 (0%)	0/23 (0%)	0/28 (0%)	1/20 (5%)
FIRST INCIDENCE				729 (T)
STATISTICAL TESTS				
POLY 3	(n)	(n)	(n)	(n)
POLY 1.5	(n)	(n)	(n)	(n)
POLY 6	(n)	(n)	(n)	(n)
RAO-SCOTT	(n)	(n)	(n)	(n)
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Thyroid Gland: C-Cell Hyperplasia				
LESION RATES				
OVERALL (a)	14/50 (28%)	6/49 (12%)	10/50 (20%)	6/49 (12%)
LITTERS (b)	12/25 (48%)	5/25 (20%)	10/25 (40%)	5/25 (20%)
POLY-3 RATE (c)	14/43.39	6/38.38	10/45.73	6/37.51
POLY-3 PERCENT (g)	32.3%	15.6%	21.9%	16%
TERMINAL (d)	10/28 (36%)	5/23 (22%)	3/29 (10%)	0/20 (0%)
FIRST INCIDENCE	521	675	488	570
STATISTICAL TESTS				
POLY 3	P=0.140N	P=0.065N	P=0.191N	P=0.073N
POLY 1.5	P=0.129N	P=0.057N	P=0.214N	P=0.061N
POLY 6	P=0.154N	P=0.075N	P=0.164N	P=0.090N
RAO-SCOTT	P=0.152N	P=0.071N	P=0.198N	P=0.078N
LITTER C-A/FISHERS	P=0.103N	P=0.036N*	P=0.388N	P=0.036N*

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females					
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female		
Tooth: Dentine Degeneration						
LESION RATES						
OVERALL (a)	0/0 (0%)	0/0 (0%)	0/1 (0%)	0/1 (0%)		
LITTERS (b)	0/0 (0%)	0/0 (0%)	0/1 (0%)	0/1 (0%)		
POLY-3 RATE (c)	0/0.00	0/0.00	0/1.00	0/0.89		
POLY-3 PERCENT (g)	0%	0%	0%	0%		
TERMINAL (d)	0/0 (0%)	0/0 (0%)	0/1 (0%)	0/0 (0%)		
FIRST INCIDENCE						
STATISTICAL TESTS						
POLY 3	(n)	(n)	(n)	(n)		
POLY 1.5	(n)	(n)	(n)	(n)		
POLY 6	(n)	(n)	(n)	(n)		
RAO-SCOTT	(n)	(n)	(n)	(n)		
LITTER C-A/FISHERS	(n)	(n)	(n)	(n)		

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Urinary Bladder Inflammation Chronic				
LESION RATES				
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
LITTERS (b)	0/25 (0%)	2/25 (8%)	0/25 (0%)	0/25 (0%)
POLY-3 RATE (c)	0/41.83	2/39.70	0/42.83	0/35.85
POLY-3 PERCENT (g)	0%	5%	0%	0%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	0/29 (0%)	0/20 (0%)
FIRST INCIDENCE		570		
STATISTICAL TESTS				
POLY 3	P=0.394N	P=0.225	(e)	(e)
POLY 1.5	P=0.386N	P=0.228	(e)	(e)
POLY 6	P=0.401N	P=0.223	(e)	(e)
RAO-SCOTT	P=0.461N	P=0.359	(e)	(e)
LITTER C-A/FISHERS	P=0.368N	P=0.245	(e)	(e)

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Uterus Adenomyosis				
LESION RATES				
OVERALL (a)	0/50 (0%)	2/50 (4%)	2/50 (4%)	1/49 (2%)
LITTERS (b)	0/25 (0%)	2/25 (8%)	2/25 (8%)	1/25 (4%)
POLY-3 RATE (c)	0/41.83	2/39.32	2/43.25	1/34.89
POLY-3 PERCENT (g)	0%	5.1%	4.6%	2.9%
TERMINAL (d)	0/28 (0%)	1/24 (4%)	1/29 (3%)	1/20 (5%)
FIRST INCIDENCE		691	608	729 (T)
STATISTICAL TESTS				
POLY 3	P=0.535	P=0.223	P=0.244	P=0.464
POLY 1.5	P=0.565	P=0.227	P=0.241	P=0.476
POLY 6	P=0.492	P=0.220	P=0.249	P=0.447
RAO-SCOTT	P=0.545	P=0.256	P=0.287	P=0.457
LITTER C-A/FISHERS	P=0.619	P=0.245	P=0.245	P=0.500

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Uterus Dilation				
LESION RATES				
OVERALL (a)	2/50 (4%)	3/50 (6%)	9/50 (18%)	22/49 (45%)
LITTERS (b)	2/25 (8%)	3/25 (12%)	8/25 (32%)	16/25 (64%)
POLY-3 RATE (c)	2/42.25	3/39.65	9/43.56	22/43.23
POLY-3 PERCENT (g)	4.7%	7.6%	20.7%	50.9%
TERMINAL (d)	0/28 (0%)	2/24 (8%)	7/29 (24%)	6/20 (30%)
FIRST INCIDENCE	670	588	608	430
STATISTICAL TESTS				
POLY 3	P<0.001**	P=0.471	P=0.027*	P<0.001**
POLY 1.5	P<0.001**	P=0.480	P=0.026*	P<0.001**
POLY 6	P<0.001**	P=0.463	P=0.028*	P<0.001**
RAO-SCOTT	P<0.001**	P=0.468	P=0.042*	P<0.001**
LITTER C-A/FISHERS	P<0.001**	P=0.500	P=0.037*	P<0.001**

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Uterus Hemorrhage					
LESION RATES					
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	8/49 (16%)	
LITTERS (b)	1/25 (4%)	0/25 (0%)	0/25 (0%)	8/25 (32%)	
POLY-3 RATE (c)	1/42.03	0/39.18	0/42.83	8/38.65	
POLY-3 PERCENT (g)	2.4%	0%	0%	20.7%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	0/29 (0%)	1/20 (5%)	
FIRST INCIDENCE	677			478	
STATISTICAL TESTS					
POLY 3	P<0.001**	P=0.514N	P=0.496N	P=0.010**	
POLY 1.5	P<0.001**	P=0.510N	P=0.498N	P=0.011*	
POLY 6	P<0.001**	P=0.518N	P=0.495N	P=0.009**	
RAO-SCOTT	P<0.001**	P=0.552N	P=0.555N	P=0.030*	
LITTER C-A/FISHERS	P<0.001**	P=0.500N	P=0.500N	P=0.012*	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Uterus Hyperplasia Atypical				
LESION RATES				
OVERALL (a)	3/50 (6%)	4/50 (8%)	5/50 (10%)	5/49 (10%)
LITTERS (b)	3/25 (12%)	4/25 (16%)	5/25 (20%)	5/25 (20%)
POLY-3 RATE (c)	3/42.39	4/39.24	5/42.83	5/34.89
POLY-3 PERCENT (g)	7.1%	10.2%	11.7%	14.3%
TERMINAL (d)	2/28 (7%)	3/24 (13%)	5/29 (17%)	5/20 (25%)
FIRST INCIDENCE	556	712	729 (T)	729 (T)
STATISTICAL TESTS				
POLY 3	P=0.230	P=0.458	P=0.361	P=0.254
POLY 1.5	P=0.267	P=0.471	P=0.359	P=0.289
POLY 6	P=0.185	P=0.445	P=0.363	P=0.210
RAO-SCOTT	P=0.217	P=0.433	P=0.346	P=0.232
LITTER C-A/FISHERS	P=0.331	P=0.500	P=0.351	P=0.351

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

			Females	
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Uterus Inflammation Acute				
LESION RATES				
OVERALL (a)	2/50 (4%)	0/50 (0%)	2/50 (4%)	4/49 (8%)
LITTERS (b)	2/25 (8%)	0/25 (0%)	2/25 (8%)	4/25 (16%)
POLY-3 RATE (c)	2/41.83	0/39.18	2/43.43	4/36.91
POLY-3 PERCENT (g)	4.8%	0%	4.6%	10.8%
TERMINAL (d)	2/28 (7%)	0/24 (0%)	1/29 (3%)	0/20 (0%)
FIRST INCIDENCE	729 (T)		538	478
STATISTICAL TESTS				
POLY 3	P=0.070	P=0.252N	P=0.681N	P=0.280
POLY 1.5	P=0.075	P=0.247N	P=0.687N	P=0.296
POLY 6	P=0.065	P=0.255N	P=0.674N	P=0.259
RAO-SCOTT	P=0.081	P=0.271N	P=0.673N	P=0.295
LITTER C-A/FISHERS	P=0.083	P=0.245N	P=0.695	P=0.334

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Black Cohosh CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Uterus Inflammation Chronic				
LESION RATES				
OVERALL (a)	4/50 (8%)	6/50 (12%)	7/50 (14%)	7/49 (14%)
LITTERS (b)	4/25 (16%)	6/25 (24%)	6/25 (24%)	7/25 (28%)
POLY-3 RATE (c)	4/42.07	6/39.65	7/43.35	7/38.45
POLY-3 PERCENT (g)	9.5%	15.1%	16.2%	18.2%
TERMINAL (d)	2/28 (7%)	5/24 (21%)	5/29 (17%)	1/20 (5%)
FIRST INCIDENCE	677	588	608	430
STATISTICAL TESTS				
POLY 3	P=0.232	P=0.331	P=0.277	P=0.208
POLY 1.5	P=0.246	P=0.342	P=0.270	P=0.222
POLY 6	P=0.209	P=0.321	P=0.285	P=0.189
RAO-SCOTT	P=0.236	P=0.325	P=0.278	P=0.208
LITTER C-A/FISHERS	P=0.266	P=0.363	P=0.363	P=0.248

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Uterus Polyarteritis Nodosa					
LESION RATES					
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	1/49 (2%)	
LITTERS (b)	0/25 (0%)	0/25 (0%)	2/25 (8%)	1/25 (4%)	
POLY-3 RATE (c)	0/41.83	0/39.18	2/43.03	1/35.18	
POLY-3 PERCENT (g)	0%	0%	4.7%	2.8%	
TERMINAL (d)	0/28 (0%)	0/24 (0%)	1/29 (3%)	0/20 (0%)	
FIRST INCIDENCE			676	650	
STATISTICAL TESTS					
POLY 3	P=0.288	(e)	P=0.243	P=0.466	
POLY 1.5	P=0.310	(e)	P=0.240	P=0.477	
POLY 6	P=0.257	(e)	P=0.247	P=0.450	
RAO-SCOTT	P=0.349	(e)	P=0.339	P=0.519	
LITTER C-A/FISHERS	P=0.349	(e)	P=0.245	P=0.500	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Uterus Squamous Metaplasia					
LESION RATES					
OVERALL (a)	21/50 (42%)	25/50 (50%)	30/50 (60%)	38/49 (78%)	
LITTERS (b)	19/25 (76%)	20/25 (80%)	20/25 (80%)	23/25 (92%)	
POLY-3 RATE (c)	21/43.35	25/43.48	30/45.43	38/45.34	
POLY-3 PERCENT (g)	48.4%	57.5%	66%	83.8%	
TERMINAL (d)	16/28 (57%)	16/24 (67%)	21/29 (72%)	17/20 (85%)	
FIRST INCIDENCE	556	386	538	430	
STATISTICAL TESTS					
POLY 3	P<0.001**	P=0.257	P=0.063	P<0.001**	
POLY 1.5	P<0.001**	P=0.252	P=0.056	P<0.001**	
POLY 6	P<0.001**	P=0.275	P=0.077	P<0.001**	
RAO-SCOTT	P<0.001**	P=0.259	P=0.072	P<0.001**	
LITTER C-A/FISHERS	P=0.096	P=0.500	P=0.500	P=0.123	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Uterus Thrombus					
LESION RATES					
OVERALL (a)	1/50 (2%)	0/50 (0%)	5/50 (10%)	5/49 (10%)	
LITTERS (b)	1/25 (4%)	0/25 (0%)	5/25 (20%)	5/25 (20%)	
POLY-3 RATE (c)	1/41.83	0/39.18	5/43.51	5/36.79	
POLY-3 PERCENT (g)	2.4%	0%	11.5%	13.6%	
TERMINAL (d)	1/28 (4%)	0/24 (0%)	3/29 (10%)	1/20 (5%)	
FIRST INCIDENCE	729 (T)		608	478	
STATISTICAL TESTS					
POLY 3	P=0.017*	P=0.513N	P=0.110	P=0.073	
POLY 1.5	P=0.020*	P=0.509N	P=0.106	P=0.081	
POLY 6	P=0.014*	P=0.516N	P=0.115	P=0.064	
RAO-SCOTT	P=0.030*	P=0.523N	P=0.147	P=0.101	
LITTER C-A/FISHERS	P=0.025*	P=0.500N	P=0.095	P=0.095	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Uterus Ulcer					
LESION RATES					
OVERALL (a)	0/50 (0%)	1/50 (2%)	3/50 (6%)	9/49 (18%)	
LITTERS (b)	0/25 (0%)	1/25 (4%)	2/25 (8%)	8/25 (32%)	
POLY-3 RATE (c)	0/41.83	1/39.18	3/43.16	9/38.37	
POLY-3 PERCENT (g)	0%	2.6%	7%	23.5%	
TERMINAL (d)	0/28 (0%)	1/24 (4%)	2/29 (7%)	2/20 (10%)	
FIRST INCIDENCE		729 (T)	638	475	
STATISTICAL TESTS					
POLY 3	P<0.001**	P=0.487	P=0.124	P<0.001**	
POLY 1.5	P<0.001**	P=0.491	P=0.122	P<0.001**	
POLY 6	P<0.001**	P=0.484	P=0.127	P<0.001**	
RAO-SCOTT	P<0.001**	P=0.556	P=0.208	P=0.009**	
LITTER C-A/FISHERS	P<0.001**	P=0.500	P=0.245	P=0.002**	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Uterus: Cervix Hyperplasia					
LESION RATES					
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	3/49 (6%)	
LITTERS (b)	3/25 (12%)	1/25 (4%)	1/25 (4%)	3/25 (12%)	
POLY-3 RATE (c)	3/41.89	1/39.18	1/42.83	3/34.89	
POLY-3 PERCENT (g)	7.2%	2.6%	2.3%	8.6%	
TERMINAL (d)	2/28 (7%)	1/24 (4%)	1/29 (3%)	3/20 (15%)	
FIRST INCIDENCE	715	729 (T)	729 (T)	729 (T)	
STATISTICAL TESTS					
POLY 3	P=0.362	P=0.329N	P=0.297N	P=0.576	
POLY 1.5	P=0.379	P=0.322N	P=0.301N	P=0.606	
POLY 6	P=0.339	P=0.335N	P=0.292N	P=0.532	
RAO-SCOTT	P=0.342	P=0.345N	P=0.323N	P=0.561	
LITTER C-A/FISHERS	P=0.413	P=0.305N	P=0.305N	P=0.666	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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

Black Cohosh
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Date Report Requested: 10/09/2020 Time Report Requested: 09:53:31 First Dose M/F: 07/03/12 / 07/02/12

Lab: BAT

	Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female	
Uterus: Endometrium Hyperplasia Cystic					
LESION RATES					
OVERALL (a)	19/50 (38%)	26/50 (52%)	23/50 (46%)	13/49 (27%)	
LITTERS (b)	14/25 (56%)	18/25 (72%)	18/25 (72%)	10/25 (40%)	
POLY-3 RATE (c)	19/42.91	26/42.49	23/44.74	13/35.98	
POLY-3 PERCENT (g)	44.3%	61.2%	51.4%	36.1%	
TERMINAL (d)	14/28 (50%)	19/24 (79%)	17/29 (59%)	9/20 (45%)	
FIRST INCIDENCE	606	386	538	586	
STATISTICAL TESTS					
POLY 3	P=0.089N	P=0.079	P=0.321	P=0.303N	
POLY 1.5	P=0.057N	P=0.087	P=0.297	P=0.238N	
POLY 6	P=0.158N	P=0.069	P=0.348	P=0.411N	
RAO-SCOTT	P=0.094N	P=0.100	P=0.332	P=0.308N	
LITTER C-A/FISHERS	P=0.039N*	P=0.189	P=0.189	P=0.198N	

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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Black Cohosh
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Lab: BAT

Females				
DOSE	0 mg/kg female	75 mg/kg female	250 mg/kg female	750 mg/kg female
Vagina Inflammation Acute				
LESION RATES				
OVERALL (a)	1/50 (2%)	0/50 (0%)	4/50 (8%)	0/50 (0%)
LITTERS (b)	1/25 (4%)	0/25 (0%)	4/25 (16%)	0/25 (0%)
POLY-3 RATE (c)	1/42.46	0/39.18	4/43.40	0/35.85
POLY-3 PERCENT (g)	2.4%	0%	9.2%	0%
TERMINAL (d)	0/28 (0%)	0/24 (0%)	1/29 (3%)	0/20 (0%)
FIRST INCIDENCE	524		644	
STATISTICAL TESTS				
POLY 3	P=0.514N	P=0.516N	P=0.185	P=0.534N
POLY 1.5	P=0.484N	P=0.511N	P=0.182	P=0.521N
POLY 6	P=0.560N	P=0.521N	P=0.189	P=0.551N
RAO-SCOTT	P=0.491N	P=0.557N	P=0.246	P=0.553N
LITTER C-A/FISHERS	P=0.441N	P=0.500N	P=0.174	P=0.500N

Test Type: CHRONIC Route: GAVAGE

Species/Strain: RATS/HSD

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Lab: BAT

### **LEGEND**

(a)	Number of tumor-bearing animals/number of animals examined at site.

- (b) Number of litters with tumor-bearing animals/number of litters examined at site
- (c) Number of tumor-bearing animals/Poly-3 number
- (d) Observed incidence at terminal kill.
- (e) Value of statistic cannot be computed.
- (f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group.
- (g) Poly-3 adjusted lifetime tumor incidence.
- (n) No statistics are calculated if all dose groups have fewer than two tumors.
- (I) Interim sacrifice
- (T) Terminal sacrifice
- # Tumor rates based on numbers of animals necropsied.
- \* To the right of any statistical result, indicates significance at (P<=0.05).
- \*\* To the right of any statistical result, indicates significance at (P<=0.01).
- N Indicates a negative trend for all tests

The Rao-Scott statistic performs the Poly-3 test with an adjustment for within-litter correlation.

The Litter C-A/Fishers statistic compares directly the litter incidence rates.

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