

Study Number: C00058B-04
Test Type: TOX
Route: Oral Gavage
Species/Strain: Mouse/B6C3F1/N

PA50: Bone Marrow Smear Summary
Test Compound: Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 02/09/2021
Time Report Requested: 08:46:09
Lab: NTP

Study Number: C00058B-04
Study Gender: Female
PWG Approval Date: See web page for date of PWG Approval
Version: v1.1.7

Study Number: C00058B-04
Test Type: TOX
Route: Oral Gavage
Species/Strain: Mouse/B6C3F1/N

PA50: Bone Marrow Smear Summary
Test Compound: Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 02/09/2021
Time Report Requested: 08:46:09
Lab: NTP

Female: 3-Month Interim Fem

	Phase Day	Treatment Groups (mg/kg)				
		0	30	100	300	1000
Total Bone Marrow Cell Count (10 ⁷ cells/femur)	SD 92	1.77 ± 0.08 (10)	1.91 ± 0.08 (10)	2.02 ± 0.07 (10)	1.95 ± 0.06 (10)	1.86 ± 0.07 (10)
Percent of Control			108.1	114.1	110.5	105.2
Myeloblast (# cells counted)	SD 92	9.0 ± 0.7 (10)	8.3 ± 1.4 (10)	8.9 ± 1.1 (10)	8.0 ± 0.6 (10)	9.6 ± 0.9 (10)
Percent of Control			92.2	98.9	88.9	106.7
Myelocyte (# cells counted)	SD 92	34.4 ± 1.1 (10)	31.2 ± 0.8 (10)	28.0 ± 1.0 (10) **	29.4 ± 2.3 (10)	37.5 ± 2.4 (10)
Percent of Control			90.7	81.4	85.5	109.0
Promyelocyte (# cells counted)	SD 92	27.3 ± 1.4 (10)	23.5 ± 1.6 (10)	24.5 ± 1.6 (10)	23.7 ± 2.0 (10)	28.3 ± 1.8 (10)
Percent of Control			86.1	89.7	86.8	103.7
Metamyelocyte (# cells counted)	SD 92	52.4 ± 2.3 (10)	48.8 ± 3.1 (10)	51.5 ± 3.3 (10)	51.1 ± 2.9 (10)	56.9 ± 1.7 (10)
Percent of Control			93.1	98.3	97.5	108.6
Band Granulocyte (# cells counted)	SD 92	69.0 ± 4.0 (10)	74.1 ± 5.5 (10)	69.6 ± 3.0 (10)	75.4 ± 2.8 (10)	68.5 ± 2.2 (10)
Percent of Control			107.4	100.9	109.3	99.3
Segmented Granulocyte (# cells counted)	SD 92	151.6 ± 5.6 (10)	150.6 ± 4.5 (10)	141.7 ± 6.8 (10)	148.4 ± 5.9 (10)	139.8 ± 3.3 (10)
Percent of Control			99.3	93.5	97.9	92.2
Rubriblast (# cells counted)	SD 92	9.2 ± 1.0 (10)	9.2 ± 1.5 (10)	10.7 ± 0.9 (10)	7.9 ± 0.8 (10)	9.0 ± 1.0 (10)
Percent of Control			100.0	116.3	85.9	97.8
Rubricyte (# cells counted)	SD 92	43.7 ± 3.1 (10)	45.1 ± 3.6 (10)	50.8 ± 1.9 (10)	45.9 ± 2.1 (10)	40.9 ± 1.5 (10)
Percent of Control			103.2	116.2	105.0	93.6
Prorubricyte (# cells counted)	SD 92	25.2 ± 1.9 (10)	26.2 ± 2.2 (10)	30.1 ± 1.3 (10)	26.6 ± 1.8 (10)	26.5 ± 1.7 (10)
Percent of Control			104.0	119.4	105.6	105.2
Metarubricyte (# cells counted)	SD 92	78.2 ± 3.1 (10)	83.1 ± 2.5 (10)	84.6 ± 4.3 (10)	83.4 ± 5.1 (10)	82.9 ± 5.8 (10)

Study Number: C00058B-04
Test Type: TOX
Route: Oral Gavage
Species/Strain: Mouse/B6C3F1/N

PA50: Bone Marrow Smear Summary
Test Compound: Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 02/09/2021
Time Report Requested: 08:46:09
Lab: NTP

Female: 3-Month Interim Fem

		Treatment Groups (mg/kg)				
	Phase Day	0	30	100	300	1000
Percent of Control			106.3	108.2	106.6	106.0
M:E Ratio	SD 92	2.257 ± 0.147 (10)	2.106 ± 0.131 (10)	1.858 ± 0.079 (10)	2.110 ± 0.148 (10)	2.178 ± 0.123 (10)
Percent of Control			93.3	82.3	93.5	96.5

Study Number: C00058B-04
Test Type: TOX
Route: Oral Gavage
Species/Strain: Mouse/B6C3F1/N

PA50: Bone Marrow Smear Summary
Test Compound: Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 02/09/2021
Time Report Requested: 08:46:09
Lab: NTP

Female: 1-Year Interim Fem

	Phase Day	Treatment Groups (mg/kg)				
		0	30	100	300	1000
Total Bone Marrow Cell Count (10 ⁷ cells/femur)	SD 365	2.14 ± 0.07 (10)	2.03 ± 0.14 (10)	2.16 ± 0.16 (10)	2.25 ± 0.26 (10)	2.24 ± 0.13 (10)
Percent of Control			94.7	101.1	105.2	104.8
Myeloblast (# cells counted)	SD 365	8.0 ± 0.8 (10)	8.6 ± 0.9 (10)	5.7 ± 0.9 (10)	6.3 ± 0.6 (10)	6.8 ± 0.6 (10)
Percent of Control			107.5	71.3	78.8	85.0
Myelocyte (# cells counted)	SD 365	37.3 ± 2.2 (10)	45.3 ± 1.9 (10)	42.0 ± 2.3 (10)	34.7 ± 1.7 (10)	35.9 ± 2.5 (10)
Percent of Control			121.4	112.6	93.0	96.2
Promyelocyte (# cells counted)	SD 365	27.1 ± 3.0 (10)	31.1 ± 2.4 (10)	24.3 ± 1.9 (10)	22.5 ± 1.7 (10)	23.1 ± 1.3 (10)
Percent of Control			114.8	89.7	83.0	85.2
Metamyelocyte (# cells counted)	SD 365	54.6 ± 1.6 (10)	58.0 ± 2.7 (10)	65.1 ± 3.7 (10)	58.8 ± 3.1 (10)	61.1 ± 2.3 (10)
Percent of Control			106.2	119.2	107.7	111.9
Band Granulocyte (# cells counted)	SD 365	64.8 ± 2.7 (10)	64.5 ± 3.6 (10)	67.6 ± 2.8 (10)	62.0 ± 2.9 (10)	65.7 ± 3.2 (10)
Percent of Control			99.5	104.3	95.7	101.4
Segmented Granulocyte (# cells counted)	SD 365	138.2 ± 3.3 (10) *	149.2 ± 6.9 (10)	135.0 ± 4.8 (10)	155.4 ± 4.3 (10)	155.4 ± 6.1 (10)
Percent of Control			108.0	97.7	112.4	112.4
Rubriblast (# cells counted)	SD 365	8.6 ± 0.7 (10)	8.9 ± 1.0 (10)	7.5 ± 1.0 (10)	7.8 ± 1.0 (10)	7.8 ± 1.2 (10)
Percent of Control			103.5	87.2	90.7	90.7
Rubricyte (# cells counted)	SD 365	47.0 ± 2.5 (10) *	42.3 ± 2.6 (10)	45.7 ± 2.1 (10)	38.1 ± 1.0 (10) *	42.4 ± 3.2 (10)
Percent of Control			90.0	97.2	81.1	90.2
Prorubricyte (# cells counted)	SD 365	24.7 ± 1.5 (10)	26.9 ± 1.4 (10)	26.4 ± 1.2 (10)	25.0 ± 1.9 (10)	23.7 ± 1.7 (10)
Percent of Control			108.9	106.9	101.2	96.0
Metarubricyte (# cells counted)	SD 365	89.5 ± 2.5 (10)	65.2 ± 1.9 (10) **	81.3 ± 5.3 (10)	89.4 ± 4.3 (10)	78.1 ± 4.8 (10)

Study Number: C00058B-04
Test Type: TOX
Route: Oral Gavage
Species/Strain: Mouse/B6C3F1/N

PA50: Bone Marrow Smear Summary
Test Compound: Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 02/09/2021
Time Report Requested: 08:46:09
Lab: NTP

Female: 1-Year Interim Fem

		Treatment Groups (mg/kg)				
	Phase Day	0	30	100	300	1000
Percent of Control			72.8	90.8	99.9	87.3
M:E Ratio	SD 365	1.976 ± 0.108 (10)	2.508 ± 0.085 (10) *	2.164 ± 0.130 (10)	2.162 ± 0.121 (10)	2.396 ± 0.190 (10)
Percent of Control			126.9	109.5	109.4	121.2

Study Number: C00058B-04
Test Type: TOX
Route: Oral Gavage
Species/Strain: Mouse/B6C3F1/N

PA50: Bone Marrow Smear Summary
Test Compound: Black Cohosh
CAS Number: 84776-26-1

Date Report Requested: 02/09/2021
Time Report Requested: 08:46:09
Lab: NTP

LEGEND

Data are displayed as mean \pm SEM (N) unless otherwise noted.

M:E ratio calculated as the sum of the number of myeloblasts, promyelocytes, myelocytes, metamyelocytes, band granulocytes, and segmented granulocytes divided by the sum of the number of rubriblasts, prorubricytes, rubricytes, and metarubricytes.

Statistical analysis were performed by Jonckheere (trend) and Shirley or Dunn (pairwise) tests.

Statistical significance for the control group indicates a significant trend test

Statistical significance for a treatment group indicates a significant pairwise test compared to the vehicle control group

* Statistically significant at $P \leq 0.05$

** Statistically significant at $P \leq 0.01$

**** END OF REPORT ****