NTP Study Number: Study Duration: Study Methodology: Male Study Result: G04: In Vivo Micronucleus Summary Data Test Compound: 4-Methylimidazole CAS Number: 822-36-6 Date Report Requested: 09/20/2018 Time Report Requested: 16:54:11

A49564 72 Hours Slide Scoring Negative

	MN PCE/1000			% PCE
Dose (mg/kg)	Ν	Mean ± SEM	p-Value	Mean ± SEM
Vehicle Control ¹	5	1.70 ± 0.25		49.90 ± 2.46
200.0	5	1.50 ± 0.16	0.6383	53.00 ± 2.52
end p-Value		0.6380		
Positive Control ²	5	16.70 ± 1.12	< 0.001 *	52.00 ± 1.50

	MN PCE/1000			% PCE
Dose (mg/kg)	Ν	Mean ± SEM	p-Value	Mean ± SEM
Vehicle Control ¹	5	14.20 ± 1.10		45.90 ± 6.41
50.0	5	1.90 ± 0.56	1.0000	40.80 ± 2.15
100.0	5	1.30 ± 0.25	1.0000	45.50 ± 2.81
nd p-Value		1.0000		
Positive Control ³	5	14.00 ± 2.27	0.5477	51.30 ± 1.45

Ν		MN PCE/1000		
14	Mean ± SEM	p-Value	Mean ± SEM	
5	2.20 ± 0.44		54.40 ± 0.76	
5	2.50 ± 0.22	0.3307	51.40 ± 2.33	
5	4.30 ± 1.08	0.0045 *	53.80 ± 2.86	
5	4.10 ± 0.58	0.0083 *	48.70 ± 2.32	
	0.0030 *			
5	31.30 ± 1.81	< 0.001 *	44.00 ± 1.47	
	5 5 5	5 2.50 ± 0.22 5 4.30 ± 1.08 5 4.10 ± 0.58 0.0030 *	5 2.50 ± 0.22 0.3307 5 4.30 ± 1.08 $0.0045 *$ 5 4.10 ± 0.58 $0.0083 *$ 0.0030 *	

	MN PCE/1000			% PCE
Dose (mg/kg)	Ν	Mean ± SEM	p-Value	Mean ± SEM
Vehicle Control ¹	5	2.50 ± 0.22		48.10 ± 3.63
25.0	5	3.00 ± 0.27	0.2498	51.80 ± 5.66
50.0	5	3.10 ± 0.66	0.2110	46.80 ± 3.29
100.0	5	2.40 ± 0.56	0.5569	53.40 ± 2.31
rend p-Value		0.6140		
Positive Control ⁴	5	12.90 ± 1.26	< 0.001 *	49.00 ± 1.88

LEGEND

MN = micronucleated, PCE = polychromatic erythrocyte, NCE = normochromatic erythrocyte

CAS Number = Chemical Abstracts Service registry number

N = Number of subjects

Values given as Mean or Mean ± Standard Error Mean

Results were tabulated as the mean of the pooled results from all animals within a treatment group, plus or minus the standard error of the mean

Pairwise comparison to the concurrent control, dosed groups significant at p = 0.025/number of treatment groups; positive control value is significant at p = 0.05

Cochran-Armitage trend test, significant at p = 0.025

* Statistically significant pairwise or trend test

1: Vehicle Control: Phosphate Buffered Saline

2: 15.0 mg/kg Cyclophosphamide

3: 25.0 mg/kg Cyclophosphamide

4: 10.0 mg/kg Cyclophosphamide

** END OF REPORT **