

Experiment Number: 188858

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: m-Phenylenediamine

CAS Number: 108-45-2

Date Report Requested: 09/14/2018

Time Report Requested: 01:17:30

NTP Study Number: 188858

Study Result: Positive

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Strain: TA100

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	104 ± 0.9	112 ± 6.4	128 ± 8.7	141 ± 0.9	139 ± 2.7
33.0					181 ± 13.6
100.0	107 ± 7.4	161 ± 16.0	189 ± 11.7	232 ± 18.4	235 ± 17.0
333.0	103 ± 9.5	224 ± 7.5	257 ± 17.2	385 ± 14.9	347 ± 23.4
1000.0	121 ± 10.7	315 ± 8.4	337 ± 7.5	597 ± 14.7	542 ± 6.7
3333.0	105 ± 6.9	414 ± 8.0	488 ± 17.8	802 ± 5.0	877 ± 40.4
10000.0	114 ± 5.8	608 ± 7.7	746 ± 23.4	1140 ± 33.4	
Trial Summary	Negative	Positive	Positive	Positive	Positive
Positive Control ²				806 ± 63.9	872 ± 17.2
Positive Control ³		512 ± 8.7	599 ± 85.0		
Positive Control ⁴	422 ± 7.9				

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Strain: TA1535

Dose (ug/Plate)	Without S9	With 5% Rat S9	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	17 ± 2.0	10 ± 2.6	9 ± 0.6	13 ± 0.7	15 ± 2.0
100.0	20 ± 2.5		10 ± 1.9		
333.0	16 ± 1.9	13 ± 2.5	10 ± 1.2	13 ± 1.9	16 ± 1.9
1000.0	13 ± 0.3	23 ± 3.5	16 ± 3.0	16 ± 1.8	18 ± 0.9
3333.0	17 ± 3.6	17 ± 1.5	17 ± 0.3	26 ± 3.8	23 ± 1.8
6666.0		19 ± 1.0		19 ± 4.2	18 ± 2.5
10000.0	15 ± 0.7	20 ± 1.5	20 ± 2.9	22 ± 4.4	16 ± 2.1
Trial Summary	Negative	Weakly Positive	Equivocal	Equivocal	Negative
Positive Control ³					
Positive Control ⁴	350 ± 25.8				
Positive Control ⁵		396 ± 27.2	173 ± 16.7	313 ± 12.9	150 ± 4.5

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Strain: TA1535

Dose (ug/Plate)	With 5% Hamster S9	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	13 ± 1.5	9 ± 1.5	14 ± 0.3	13 ± 0.9
100.0		9 ± 1.0		
333.0	22 ± 0.6	15 ± 2.6	25 ± 3.2	25 ± 3.0
1000.0	26 ± 2.2	20 ± 4.0	26 ± 0.3	29 ± 1.5
3333.0	16 ± 2.6	22 ± 3.6	25 ± 0.3	34 ± 5.0
6666.0	18 ± 0.7		21 ± 1.5	28 ± 0.5
10000.0	22 ± 1.5	22 ± 0.9	24 ± 0.0	16 ± 2.0
Trial Summary	Equivocal	Equivocal	Equivocal	Positive
Positive Control ³	415 ± 8.9	320 ± 19.4	389 ± 7.6	
Positive Control ⁴				
Positive Control ⁵				685 ± 6.0

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Strain: TA97

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	143 ± 2.5	173 ± 13.4	161 ± 18.2	185 ± 6.7	171 ± 19.5
10.0			213 ± 6.7		197 ± 9.7
33.0			237 ± 16.5		274 ± 6.5
100.0	164 ± 11.2	307 ± 15.9	309 ± 12.1	343 ± 26.3	360 ± 6.1
333.0	163 ± 5.7	492 ± 44.4	492 ± 25.5	568 ± 29.8	671 ± 22.4
666.0					927 ± 39.4
1000.0	171 ± 4.8	854 ± 88.9	844 ± 78.3	1031 ± 115.8	
3333.0	167 ± 7.4	1252 ± 140.5		1512 ± 152.3	
10000.0	165 ± 3.6	1585 ± 87.1		1867 ± 125.8	
Trial Summary	Negative	Positive	Positive	Positive	Positive
Positive Control ²				433 ± 28.1	649 ± 18.2
Positive Control ³		371 ± 1.0	493 ± 5.8		
Positive Control ⁶	495 ± 43.0				

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Strain: TA98

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	24 ± 2.3	30 ± 0.6	26 ± 2.5	44 ± 5.8	35 ± 4.7
1.0			37 ± 2.9		47 ± 2.9
3.0			44 ± 2.9		74 ± 9.3
10.0			65 ± 1.0		135 ± 1.5
33.0			165 ± 3.2		261 ± 12.1
100.0	22 ± 2.5	360 ± 33.6	347 ± 23.2	519 ± 30.7	604 ± 51.1
333.0	22 ± 2.7	912 ± 64.9		1336 ± 38.7	
1000.0	34 ± 4.5	1704 ± 125.4		2240 ± 160.1	
3333.0	34 ± 2.8	2401 ± 86.0		2586 ± 207.4	
10000.0	38 ± 0.5	0 ± 0.0 ^x		0 ± 0.0 ^x	
Trial Summary	Negative	Positive	Positive	Positive	Positive
Positive Control ²				691 ± 15.4	587 ± 24.0
Positive Control ³		345 ± 7.1	411 ± 52.5		
Positive Control ⁷	588 ± 28.8				

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LEGEND

Values given as Mean or Mean \pm Standard Error Mean

The number of samples = 3, unless samples marked toxic or contaminated were excluded from mean and SEM calculations

CAS Number = Chemical Abstracts Service registry number

1: Vehicle Control: Dimethyl Sulfoxide

2: 0.5 ug/Plate 2-Aminoanthracene

3: 1.0 ug/Plate 2-Aminoanthracene

4: 1.0 ug/Plate Sodium Azide

5: 2.5 ug/Plate 2-Aminoanthracene

6: 50.0 ug/Plate 9-Aminoacridine

7: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine

x: Slight Toxicity and Precipitate

**** END OF REPORT ****