

Experiment Number: 117893

Test Type: **Genetic Toxicology - Bacterial
Mutagenicity**

G06: Ames Summary Data

Test Compound: 1,4-Dimethyl-2-nitrobenzene

CAS Number: 89-58-7

Date Report Requested: 09/12/2018

Time Report Requested: 01:20:07

NTP Study Number:

117893

Study Result:

Positive

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Strain: TA100

Dose (ug/Plate)	Without S9	With 5% Rat S9	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	109 ± 13.7	111 ± 12.3	161 ± 3.0	145 ± 8.0	139 ± 17.0
3.0	120 ± 5.9				
10.0	99 ± 5.3	163 ± 10.6	149 ± 3.0	113 ± 3.5	165 ± 6.8
33.0	105 ± 11.8	141 ± 19.4	159 ± 15.0	138 ± 4.3	156 ± 1.2
100.0	104 ± 13.4	129 ± 9.3	165 ± 8.9	144 ± 5.8	220 ± 22.4
166.0	18 ± 5.0 ^s				
333.0		131 ± 3.2	181 ± 13.0	155 ± 11.4	293 ± 20.8
666.0					
1000.0		126 ± 8.1 ^s	180 ± 10.3 ^s	170 ± 7.7 ^s	343 ± 17.8 ^s
Trial Summary	Negative	Equivocal	Negative	Negative	Positive
Positive Control ²					
Positive Control ³		1311 ± 80.8	1178 ± 36.1	820 ± 29.0	395 ± 6.7
Positive Control ⁴	368 ± 15.8				

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Strain: TA100

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	133 ± 11.3	107 ± 12.2	113 ± 0.3
3.0			
10.0	153 ± 3.3	138 ± 7.3	131 ± 11.5
33.0	194 ± 6.4	161 ± 2.3	131 ± 9.7
100.0	188 ± 4.9	164 ± 0.9	160 ± 6.7
166.0			
333.0	210 ± 18.6	196 ± 13.6	209 ± 12.8
666.0		206 ± 16.5	
1000.0	241 ± 33.5 ^s		221 ± 7.0 ^s
Trial Summary	Positive	Positive	Positive
Positive Control ²		501 ± 75.1	1404 ± 4.8
Positive Control ³	335 ± 20.1		
Positive Control ⁴			

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Strain: TA1535

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	16 ± 3.1	12 ± 1.5	8 ± 0.9
3.0	13 ± 2.0		
10.0	16 ± 1.0	10 ± 1.5	11 ± 2.0
33.0	14 ± 1.0	14 ± 1.5	12 ± 3.2
100.0	11 ± 1.9	12 ± 1.5	12 ± 3.8
166.0	0 ± 0.3 ^s		
333.0		13 ± 0.3	8 ± 0.6
1000.0		7 ± 1.2 ^s	6 ± 0.6 ^s
Trial Summary	Negative	Negative	Negative
Positive Control ³			443 ± 26.7
Positive Control ⁴	267 ± 12.5		
Positive Control ⁵		253 ± 20.4	

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Strain: TA97

Dose (ug/Plate)	Without S9	With 5% Rat S9	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	150 ± 10.0	158 ± 23.1	136 ± 2.9	185 ± 13.8	174 ± 22.7
3.0	150 ± 14.0	220 ± 6.9		209 ± 21.6	232 ± 14.7
10.0	146 ± 1.8	237 ± 13.8	185 ± 0.3	236 ± 13.5	268 ± 7.8
33.0	155 ± 4.1	253 ± 11.2	201 ± 3.5	257 ± 5.7	335 ± 12.3
100.0	105 ± 7.8	240 ± 10.9	175 ± 17.7	274 ± 21.8	419 ± 11.0
166.0	19 ± 6.0 ^s				
333.0		223 ± 7.1	173 ± 7.4	265 ± 19.5	501 ± 11.3
1000.0			64 ± 24.2 ^s		
Trial Summary	Negative	Equivocal	Equivocal	Equivocal	Positive
Positive Control ²					
Positive Control ³		932 ± 30.6	499 ± 7.6	703 ± 46.2	
Positive Control ⁵					765 ± 40.5
Positive Control ⁶	713 ± 6.1				

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Strain: TA97

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	177 ± 8.2	167 ± 12.3	157 ± 10.2	195 ± 8.1
3.0	177 ± 15.5			
10.0	218 ± 15.9	198 ± 7.0	235 ± 40.7	216 ± 7.1
33.0	230 ± 15.3	216 ± 19.5	321 ± 70.3	245 ± 9.7
100.0	248 ± 13.5	278 ± 20.7	339 ± 73.1	315 ± 14.0
166.0				
333.0	296 ± 16.0	278 ± 14.1	303 ± 39.8	351 ± 15.2
1000.0		293 ± 28.0 ^s	148 ± 10.7 ^s	312 ± 19.4 ^s
Trial Summary	Weakly Positive	Weakly Positive	Positive	Positive
Positive Control ²		1100 ± 58.0	606 ± 27.0	649 ± 18.2
Positive Control ³				
Positive Control ⁵	553 ± 34.0			
Positive Control ⁶				

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Strain: TA98

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	20 ± 2.7	33 ± 3.2	34 ± 2.0
3.0	15 ± 0.9		
10.0	15 ± 1.7	27 ± 1.2	25 ± 3.5
33.0	16 ± 2.2	34 ± 4.6	28 ± 5.5
100.0	12 ± 0.9	25 ± 0.3	31 ± 3.2
166.0	5 ± 2.2 ^s		
333.0		26 ± 2.4	27 ± 1.8
1000.0		22 ± 5.6 ^s	33 ± 2.9 ^s
Trial Summary	Negative	Negative	Negative
Positive Control ²			781 ± 31.5
Positive Control ³		756 ± 24.3	
Positive Control ⁷	833 ± 29.3		

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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

s: Slight Toxicity

**** END OF REPORT ****