

Experiment Number: 380727

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Malonic dinitrile

CAS Number: 109-77-3

Date Report Requested: 09/14/2018

Time Report Requested: 03:58:22

NTP Study Number:

380727

Study Result:

Negative

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	156 ± 15.3	114 ± 10.5	126 ± 9.7	134 ± 20.5	136 ± 11.9
3.0					
10.0					
33.0	169 ± 1.8	138 ± 12.5	110 ± 4.1	124 ± 4.9	127 ± 17.3
100.0	174 ± 7.2	113 ± 8.2	123 ± 8.0	134 ± 5.5	121 ± 11.1
333.0	163 ± 4.4	110 ± 5.4	123 ± 2.7	136 ± 6.8	109 ± 0.6
1000.0	147 ± 17.4	79 ± 7.3	116 ± 7.0	114 ± 1.3	81 ± 9.6
1666.0	96 ± 48.1		72 ± 37.2		
3333.0		3 ± 1.7 ^s		95 ± 11.5	78 ± 6.1
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²				1139 ± 37.1	481 ± 5.8
Positive Control ³	494 ± 5.0	481 ± 5.8	375 ± 11.2		

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Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	116 ± 8.5	123 ± 5.0	143 ± 9.6
3.0			136 ± 20.3
10.0			132 ± 11.4
33.0	126 ± 12.9	116 ± 8.7	134 ± 3.8
100.0	109 ± 14.0	96 ± 8.5	119 ± 5.0
333.0	82 ± 7.3	82 ± 7.7	81 ± 14.4
1000.0	75 ± 1.5	68 ± 2.4	
1666.0			
3333.0	42 ± 14.5	28 ± 12.5	
Trial Summary	Negative	Negative	Negative
Positive Control ²	2021 ± 62.1	927 ± 16.3	540 ± 5.2
Positive Control ³			

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Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	30 ± 5.2	31 ± 3.4	12 ± 2.7	14 ± 2.6	12 ± 2.5
10.0					
33.0	26 ± 2.9	38 ± 0.9	12 ± 1.5	11 ± 1.2	12 ± 1.5
100.0	21 ± 2.3	30 ± 3.3	14 ± 1.0	11 ± 4.0	11 ± 1.5
333.0	33 ± 3.3	30 ± 3.8	8 ± 0.6	10 ± 2.5	10 ± 1.8
666.0					
1000.0	27 ± 3.9	21 ± 1.8	8 ± 1.9	8 ± 2.3	13 ± 0.3
1666.0	24 ± 3.5				
3333.0		1 ± 0.6 ^s	10 ± 4.4	7 ± 0.3	9 ± 1.0
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ³	448 ± 224.2	509 ± 24.1			
Positive Control ⁴			779 ± 60.4	167 ± 10.1	1002 ± 33.5

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	16 ± 2.2	11 ± 2.0
10.0		8 ± 0.7
33.0	10 ± 2.2	8 ± 0.3
100.0	11 ± 1.2	9 ± 1.7
333.0	10 ± 2.2	6 ± 0.9
666.0		6 ± 0.3
1000.0	7 ± 1.5	
1666.0		
3333.0	2 ± 0.3	
Trial Summary	Negative	Negative
Positive Control ³		
Positive Control ⁴	538 ± 21.8	447 ± 18.8

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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 30% Rat S9
Vehicle Control ¹	132 ± 3.2	128 ± 17.5	193 ± 6.7	146 ± 10.8	138 ± 3.5
3.0					173 ± 12.2
10.0					172 ± 13.4
33.0	126 ± 7.5	140 ± 2.9	195 ± 17.3	142 ± 9.2	159 ± 9.0
100.0	121 ± 2.0	143 ± 11.5	218 ± 7.3	168 ± 12.2	162 ± 9.8
166.0					170 ± 15.9
333.0	136 ± 5.9	139 ± 20.6	198 ± 9.4	65 ± 12.9	
1000.0	126 ± 6.7	120 ± 17.9	203 ± 10.4	28 ± 17.1	
1666.0	122 ± 11.3	66 ± 33.0			
3333.0			171 ± 16.8	1 ± 0.9	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴			1311 ± 29.3	687 ± 3.7	399 ± 3.5
Positive Control ⁵	1368 ± 88.0	1183 ± 54.8			

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Strain: TA97

Dose (ug/Plate)	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	161 ± 10.2	166 ± 2.7	165 ± 8.2
3.0			191 ± 5.0
10.0			194 ± 8.6
33.0	161 ± 8.1	161 ± 6.4	193 ± 10.4
100.0	154 ± 9.4	117 ± 16.3	163 ± 21.7
166.0			174 ± 7.5
333.0	142 ± 11.0	54 ± 10.7	
1000.0	159 ± 9.8	34 ± 14.6	
1666.0			
3333.0	66 ± 15.5	0 ± 0.0 ^s	
Trial Summary	Negative	Negative	Negative
Positive Control ⁴	1148 ± 135.2	1311 ± 28.9	795 ± 16.4
Positive Control ⁵			

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 30% Rat S9
Vehicle Control ¹	21 ± 1.9	10 ± 1.5	38 ± 6.7	32 ± 1.5	25 ± 2.2
1.0					
3.0					24 ± 1.5
10.0					29 ± 1.2
33.0	26 ± 1.5	10 ± 1.5	43 ± 6.4	23 ± 2.8	22 ± 4.8
100.0	25 ± 3.2	11 ± 2.3	31 ± 2.9	19 ± 2.9	16 ± 0.9
333.0	22 ± 1.8	10 ± 1.5	33 ± 4.2	15 ± 1.9	14 ± 3.5
1000.0	19 ± 1.3	6 ± 1.9	28 ± 3.1	5 ± 1.8	
1666.0	14 ± 7.0	3 ± 0.3			
3333.0		0 ± 0.0 ^s	15 ± 7.7	2 ± 0.7	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²			403 ± 17.7	179 ± 14.2	177 ± 8.4
Positive Control ⁶	954 ± 34.3	881 ± 15.9			

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Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	45 ± 5.8	26 ± 3.5
1.0		28 ± 3.2
3.0		28 ± 2.9
10.0		28 ± 1.2
33.0	31 ± 0.6	23 ± 4.0
100.0	38 ± 3.2	20 ± 2.0
333.0	27 ± 1.5	
1000.0	24 ± 1.7	
1666.0		
3333.0	14 ± 7.0	
Trial Summary	Negative	Negative
Positive Control ²	868 ± 15.6	224 ± 14.4
Positive Control ⁶		

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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: Water

2: 1.0 ug/Plate 2-Aminoanthracene

3: 1.0 ug/Plate Sodium Azide

4: 2.5 ug/Plate 2-Aminoanthracene

5: 50.0 ug/Plate 9-Aminoacridine

6: 5.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****