

Experiment Number: 123659

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: 1,4-Dioxane

CAS Number: 123-91-1

Date Report Requested: 09/12/2018

Time Report Requested: 02:26:07

NTP Study Number:

123659

Study Result:

Negative

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	92 ± 8.1	89 ± 5.7	123 ± 10.7	120 ± 1.2	115 ± 10.3
100.0	119 ± 7.2	121 ± 8.7	124 ± 10.5	131 ± 3.8	115 ± 3.4
333.0	122 ± 3.2	109 ± 4.6	133 ± 3.5	135 ± 7.4	113 ± 5.4
1000.0	117 ± 4.9	96 ± 6.4	118 ± 7.0	118 ± 2.0	112 ± 4.0
3333.0	131 ± 5.2	100 ± 2.0	135 ± 5.6	123 ± 3.8	123 ± 9.8
10000.0	136 ± 8.4	120 ± 7.3	128 ± 7.0	127 ± 6.2	114 ± 8.8
Trial Summary	Equivocal	Negative	Negative	Negative	Negative
Positive Control ²					2943 ± 94.6
Positive Control ³			1602 ± 23.5	1242 ± 78.5	
Positive Control ⁴	2181 ± 53.5	2208 ± 113.5			

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Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	136 ± 10.1
100.0	149 ± 9.0
333.0	159 ± 1.2
1000.0	152 ± 3.8
3333.0	161 ± 5.7
10000.0	158 ± 6.1
Trial Summary	Negative
Positive Control ²	2369 ± 15.1
Positive Control ³	
Positive Control ⁴	

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Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	29 ± 3.2	27 ± 2.0	10 ± 2.9	8 ± 1.0	12 ± 1.3
100.0	27 ± 1.5	25 ± 2.4	13 ± 1.5	11 ± 3.2	12 ± 1.3
333.0	30 ± 4.6	24 ± 4.6	16 ± 1.8	10 ± 1.5	10 ± 0.6
1000.0	30 ± 3.8	21 ± 0.6	14 ± 4.4	9 ± 0.9	10 ± 1.8
3333.0	25 ± 2.5	24 ± 2.8	9 ± 1.9	7 ± 2.3	10 ± 0.9
10000.0	29 ± 2.8	24 ± 2.1	14 ± 2.3	10 ± 2.3	7 ± 1.5
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					184 ± 5.7
Positive Control ³			131 ± 19.0	67 ± 8.5	
Positive Control ⁴	1457 ± 28.5	1231 ± 57.5			

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Strain: TA1535

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	12 ± 0.6
100.0	15 ± 2.9
333.0	11 ± 1.5
1000.0	8 ± 1.2
3333.0	11 ± 1.2
10000.0	12 ± 1.8
Trial Summary	Negative
Positive Control ²	93 ± 34.0 ^s
Positive Control ³	
Positive Control ⁴	

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Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	6 ± 1.0	8 ± 0.9	9 ± 2.3	8 ± 1.5	13 ± 3.7
100.0	7 ± 2.6	7 ± 0.3	8 ± 1.0	6 ± 0.3	10 ± 0.7
333.0	8 ± 1.2	7 ± 1.2	9 ± 1.0	8 ± 0.9	11 ± 1.3
1000.0	7 ± 1.8	7 ± 1.5	11 ± 0.9	6 ± 2.0	11 ± 1.9
3333.0	7 ± 0.6	6 ± 1.9	12 ± 2.0	7 ± 1.5	10 ± 0.9
10000.0	10 ± 0.7	7 ± 0.9	12 ± 0.7	7 ± 0.3	9 ± 1.2
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					312 ± 31.5
Positive Control ³			146 ± 6.1	102 ± 12.3	
Positive Control ⁵	699 ± 108.1	298 ± 56.1			

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Strain: TA1537

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	8 ± 0.6
100.0	10 ± 0.3
333.0	11 ± 2.7
1000.0	10 ± 0.7
3333.0	8 ± 1.0
10000.0	11 ± 0.3
Trial Summary	Negative
Positive Control ²	220 ± 12.3
Positive Control ³	
Positive Control ⁵	

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	17 ± 2.6	20 ± 0.9	31 ± 0.9	22 ± 2.2	25 ± 2.8
100.0	15 ± 1.2	21 ± 2.3	31 ± 4.9	25 ± 3.4	31 ± 4.9
333.0	18 ± 4.7	17 ± 4.7	30 ± 5.7	30 ± 1.7	29 ± 2.8
1000.0	16 ± 1.5	16 ± 3.3	40 ± 3.8	30 ± 2.7	29 ± 2.7
3333.0	18 ± 2.8	17 ± 1.9	36 ± 2.6	25 ± 2.7	28 ± 4.1
10000.0	14 ± 0.7	16 ± 0.9	32 ± 2.5	34 ± 5.6	35 ± 4.3
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					2189 ± 15.6
Positive Control ³			1269 ± 17.0	791 ± 23.6	
Positive Control ⁶	1559 ± 35.8	1330 ± 36.3			

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Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	30 ± 3.5
100.0	33 ± 4.1
333.0	32 ± 3.2
1000.0	28 ± 5.5
3333.0	31 ± 2.4
10000.0	28 ± 2.8
Trial Summary	Negative
Positive Control ²	1493 ± 36.3
Positive Control ³	
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: 0.75 ug/Plate 2-Aminoanthracene

3: 1.5 ug/Plate 2-Aminoanthracene

4: 2.5 ug/Plate Sodium Azide

5: 80.0 ug/Plate 9-Aminoacridine

6: 12.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****