

Experiment Number: **450008**

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

G06: Ames Summary Data

Test Compound: **Fumaric acid**

CAS Number: **110-17-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **03:28:12**

NTP Study Number:

450008

Study Result:

Negative

Experiment Number: 450008

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Test Compound: Fumaric acid

CAS Number: 110-17-8

Date Report Requested: 09/11/2018

Time Report Requested: 03:28:12

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	113 ± 6.1	81 ± 3.6	114 ± 2.9	100 ± 3.2	107 ± 6.4
33.0	102 ± 6.3	75 ± 3.5	121 ± 3.6	97 ± 3.6	98 ± 6.6
100.0	105 ± 5.1	90 ± 5.5	116 ± 4.9	118 ± 4.8	85 ± 8.5
333.0	110 ± 5.5	88 ± 2.9	111 ± 6.4	109 ± 5.5	81 ± 3.5
1000.0	111 ± 3.8	72 ± 4.9	117 ± 7.3	90 ± 10.0	89 ± 7.4
2000.0	104 ± 6.1 ^s	74 ± 4.0 ^s	110 ± 4.6 ^s	93 ± 6.6 ^s	83 ± 2.7 ^s
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					1158 ± 14.6
Positive Control ³			1580 ± 37.2		
Positive Control ⁴				818 ± 13.2	
Positive Control ⁵	1047 ± 41.9	743 ± 34.4			

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Date Report Requested: 09/11/2018
Time Report Requested: 03:28:12

Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	82 ± 8.7
33.0	83 ± 1.9
100.0	81 ± 10.0
333.0	73 ± 2.2
1000.0	66 ± 6.8
2000.0	72 ± 3.9 ^s
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	1206 ± 36.4
Positive Control ⁵	

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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	43 ± 6.2	30 ± 2.3	29 ± 2.4	21 ± 0.7	21 ± 3.2
33.0	46 ± 5.5	29 ± 2.2	31 ± 3.2	12 ± 1.7	15 ± 3.8
100.0	43 ± 9.5	31 ± 5.0	30 ± 2.8	16 ± 3.2	16 ± 2.2
333.0	46 ± 3.6	28 ± 1.8	35 ± 3.8	21 ± 4.2	15 ± 0.9
1000.0	42 ± 3.3	33 ± 5.0	32 ± 1.8	16 ± 1.5	17 ± 2.6
2000.0	41 ± 3.2	26 ± 3.1	26 ± 4.5 ^s	7 ± 1.3 ^s	13 ± 4.0
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					77 ± 1.5
Positive Control ³			119 ± 4.6		
Positive Control ⁴				118 ± 7.5	
Positive Control ⁵	881 ± 11.7	948 ± 19.4			

Experiment Number: 450008

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	11 ± 0.7
33.0	11 ± 0.6
100.0	8 ± 1.2
333.0	13 ± 4.0
1000.0	12 ± 1.2
2000.0	12 ± 0.6 ^S
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	210 ± 12.5
Positive Control ⁵	

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Date Report Requested: 09/11/2018

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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	115 ± 6.4	81 ± 1.5	137 ± 8.2	177 ± 8.3	128 ± 7.0
33.0	108 ± 8.6	83 ± 1.5	141 ± 5.4	179 ± 12.1	125 ± 4.2
100.0	107 ± 7.3	93 ± 8.2	124 ± 3.8	171 ± 0.3	120 ± 7.7
333.0	99 ± 5.1	87 ± 5.8	131 ± 5.2	166 ± 2.7	116 ± 3.2
1000.0	108 ± 6.7	72 ± 1.5 ^S	151 ± 4.5	160 ± 4.2	124 ± 1.3
2000.0	119 ± 3.9	88 ± 6.7 ^S	125 ± 8.3 ^S	151 ± 3.7 ^S	126 ± 5.4 ^S
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					694 ± 5.3
Positive Control ³			1044 ± 12.5		
Positive Control ⁴				554 ± 13.5	
Positive Control ⁶	519 ± 17.4	557 ± 7.4			

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Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	137 ± 7.5
33.0	137 ± 5.9
100.0	152 ± 7.3
333.0	148 ± 3.2
1000.0	127 ± 10.8
2000.0	137 ± 8.6 ^s
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	976 ± 39.0
Positive Control ⁶	

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	28 ± 1.2	17 ± 0.9	38 ± 0.6	27 ± 1.0	35 ± 1.2
33.0	23 ± 2.6	17 ± 4.3	35 ± 4.8	25 ± 2.9	33 ± 3.1
100.0	34 ± 4.4	18 ± 3.2	45 ± 1.0	33 ± 2.0	36 ± 2.7
333.0	31 ± 6.0	15 ± 2.7	53 ± 5.7	35 ± 2.2	39 ± 2.9
1000.0	34 ± 2.7	18 ± 2.6	35 ± 2.3	36 ± 1.7	42 ± 1.7
2000.0	33 ± 4.2	16 ± 0.6	36 ± 3.5 ^s	27 ± 2.0 ^s	35 ± 4.3 ^s
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					868 ± 38.8
Positive Control ³			1175 ± 35.7		
Positive Control ⁴				427 ± 7.9	
Positive Control ⁷	1498 ± 62.7	1527 ± 67.4			

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	30 ± 2.1
33.0	29 ± 1.2
100.0	33 ± 2.0
333.0	38 ± 3.2
1000.0	32 ± 3.4
2000.0	33 ± 4.3 ^s
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	887 ± 28.7
Positive Control ⁷	

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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: 0.75 ug/Plate 2-Aminoanthracene

3: 1.5 ug/Plate 2-Aminoanthracene

4: 2.0 ug/Plate 2-Aminoanthracene

5: 2.5 ug/Plate Sodium Azide

6: 4.0 ug/Plate 9-Aminoacridine

7: 12.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****