

Experiment Number: 713639

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

G06: Ames Summary Data

Test Compound: **Methyl succinic acid**

CAS Number: **498-21-5**

Date Report Requested: **09/12/2018**

Time Report Requested: **13:52:36**

NTP Study Number:

713639

Study Result:

Negative

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	152 ± 3.8	117 ± 10.5	143 ± 5.8	162 ± 8.4	158 ± 6.7
100.0	138 ± 8.7	125 ± 18.7	137 ± 3.5	161 ± 6.0	156 ± 18.1
333.0	144 ± 4.6	131 ± 9.6	149 ± 5.6	174 ± 5.2	155 ± 10.3
1000.0	144 ± 5.6	141 ± 6.7	152 ± 7.8	161 ± 8.1	150 ± 1.5
3333.0	135 ± 11.3	125 ± 2.5	148 ± 3.8	153 ± 12.2	121 ± 10.5
6666.0		114 ± 11.4	107 ± 9.3		115 ± 3.6
10000.0	72 ± 24.4 ^s			80 ± 3.5 ^x	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					1223 ± 32.8
Positive Control ³			906 ± 15.4		
Positive Control ⁴	450 ± 6.3	319 ± 7.4			
Positive Control ⁵				536 ± 14.4	

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	158 ± 2.2
100.0	163 ± 12.7
333.0	164 ± 7.2
1000.0	175 ± 12.0
3333.0	150 ± 8.0
6666.0	
10000.0	107 ± 5.5 ^x
Trial Summary	Negative
Positive Control ²	
Positive Control ³	736 ± 21.3
Positive Control 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	26 ± 1.7	19 ± 3.1	14 ± 1.0	11 ± 2.0	10 ± 0.6
100.0	25 ± 0.7	26 ± 4.3	12 ± 3.2	16 ± 1.5	11 ± 0.9
333.0	25 ± 0.9	22 ± 1.5	13 ± 3.1	12 ± 0.3	11 ± 1.2
1000.0	24 ± 1.5	24 ± 2.0	8 ± 0.7	9 ± 1.3	8 ± 2.1
3333.0	26 ± 2.6	19 ± 1.5	9 ± 1.2	7 ± 0.3	10 ± 1.2
6666.0		18 ± 0.7	10 ± 2.2		12 ± 2.6
10000.0	13 ± 0.0			9 ± 2.2 ^p	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴	583 ± 19.2	189 ± 2.6			
Positive Control ³					160 ± 14.8
Positive Control ⁵			119 ± 19.3		
Positive Control ⁶				176 ± 14.2	

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	14 ± 1.8
100.0	14 ± 2.7
333.0	13 ± 1.8
1000.0	14 ± 0.6
3333.0	10 ± 1.7
6666.0	
10000.0	7 ± 1.2 ^p
Trial Summary	Negative
Positive Control ⁴	
Positive Control ³	
Positive Control ⁵	633 ± 57.1
Positive Control ⁶	

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Test Compound: **Methyl succinic acid**

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Strain: TA1537

Dose (ug/Plate)	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control ¹	10 ± 4.5	12 ± 0.7	13 ± 3.6
100.0	12 ± 2.3	11 ± 1.0	10 ± 0.7
333.0	11 ± 1.9	8 ± 2.4	11 ± 1.3
1000.0	9 ± 1.8	6 ± 2.7	11 ± 2.1
3333.0	9 ± 0.6	8 ± 1.2	6 ± 0.6
10000.0	7 ± 4.4 ^s	6 ± 1.7 ^p	4 ± 1.9 ^p
Trial Summary	Negative	Negative	Negative
Positive Control ³			68 ± 5.6
Positive Control ⁵		44 ± 1.8	
Positive Control ⁷	216 ± 47.0		

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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	165 ± 3.2	156 ± 4.1	185 ± 12.5	209 ± 3.5	188 ± 11.9
100.0	184 ± 6.5	174 ± 14.7	205 ± 5.3	214 ± 3.2	209 ± 2.5
333.0	192 ± 4.8	180 ± 3.1	219 ± 12.7	204 ± 7.8	210 ± 6.8
1000.0	193 ± 5.2	187 ± 4.6	199 ± 8.2	195 ± 7.3	219 ± 3.6
3333.0	205 ± 3.3	186 ± 2.3	174 ± 10.1	160 ± 6.1	186 ± 8.2
6666.0		82 ± 39.8 ^s	160 ± 13.3		174 ± 4.9
10000.0	41 ± 40.7 ^s			127 ± 16.5 ^x	
Trial Summary	Equivocal	Negative	Negative	Negative	Negative
Positive Control ²					601 ± 21.1
Positive Control ³			465 ± 20.6		
Positive Control ⁵				444 ± 6.1	
Positive Control ⁷	742 ± 48.2	497 ± 18.9			

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Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	184 ± 8.0
100.0	217 ± 3.5
333.0	212 ± 0.9
1000.0	208 ± 4.3
3333.0	168 ± 9.0
6666.0	
10000.0	87 ± 7.8 ^p
Trial Summary	Negative
Positive Control ²	
Positive Control ³	507 ± 40.6
Positive Control ⁵	
Positive Control ⁷	

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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	20 ± 2.3	22 ± 4.0	43 ± 3.5	48 ± 6.0	37 ± 5.5
100.0	18 ± 4.6	20 ± 2.5	34 ± 2.7	43 ± 6.4	39 ± 3.4
333.0	19 ± 3.0	19 ± 4.3	30 ± 0.9	37 ± 3.5	31 ± 1.0
1000.0	15 ± 2.9	22 ± 3.3	38 ± 3.5	41 ± 2.2	36 ± 4.8
3333.0	19 ± 1.5	20 ± 2.9	34 ± 5.6	18 ± 1.5 ^s	30 ± 2.4
6666.0		11 ± 2.3	28 ± 3.4		20 ± 1.5
10000.0	0 ± 0.0 ^s			11 ± 1.8 ^x	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					1161 ± 61.8
Positive Control ³			725 ± 6.1	147 ± 18.8	
Positive Control ⁸	543 ± 21.3	908 ± 22.3			

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	33 ± 4.3
100.0	27 ± 1.7
333.0	33 ± 2.3
1000.0	32 ± 3.2
3333.0	20 ± 2.1
6666.0	
10000.0	15 ± 1.3 ^x
Trial Summary	Negative
Positive Control ²	
Positive Control ³	425 ± 22.2
Positive Control 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: Water

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: 5.0 ug/Plate 2-Aminoanthracene

7: 50.0 ug/Plate 9-Aminoacridine

8: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine

p: Precipitate

s: Slight Toxicity

x: Slight Toxicity and Precipitate

**** END OF REPORT ****