

Experiment Number: 980180

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: 2,4-Dimethylphenol

CAS Number: 105-67-9

Date Report Requested: 09/18/2018

Time Report Requested: 03:21:00

NTP Study Number:

980180

Study Result:

Weakly Positive

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 30% Rat S9
Vehicle Control ¹	92 ± 3.6	106 ± 3.8	104 ± 7.0	90 ± 4.4	126 ± 7.7
10.0	87 ± 8.0	96 ± 2.4	96 ± 3.2		
33.0	108 ± 0.6	88 ± 4.1	97 ± 1.9	107 ± 9.0	131 ± 5.8
34.0					
67.0					
100.0	108 ± 6.1	91 ± 2.0	97 ± 4.3	120 ± 6.6	180 ± 12.3
200.0					
333.0		92 ± 7.5	92 ± 4.0		203 ± 5.8
334.0	108 ± 5.0 ^s			117 ± 1.8	
500.0		69 ± 3.8 ^s			
667.0	62 ± 5.0 ^s				128 ± 4.7
1000.0			26 ± 24.4 ^s	74 ± 12.2 ^s	51 ± 19.7 ^s
2000.0				Toxic	66 ± 7.5 ^s
Trial Summary	Negative	Negative	Negative	Equivocal	Weakly Positive
Positive Control ²					
Positive Control ³	314 ± 32.9	438 ± 14.4			
Positive Control ⁴			2177 ± 51.9		
Positive Control ⁵					
Positive Control ⁶				1870 ± 209.3	1522 ± 62.3

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Strain: TA100

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	118 ± 6.0	100 ± 8.0	106 ± 5.2	103 ± 3.2	121 ± 6.0
10.0		109 ± 3.8			
33.0		107 ± 7.1	115 ± 8.1	119 ± 5.5	149 ± 4.6
34.0	110 ± 1.5				
67.0	121 ± 3.2				
100.0	129 ± 7.2	123 ± 5.6	135 ± 8.1	149 ± 7.0	167 ± 8.7
200.0	180 ± 8.1		139 ± 4.0		197 ± 9.5
333.0		149 ± 6.4			
334.0	202 ± 5.6		130 ± 3.7	188 ± 2.9	216 ± 4.2
500.0					
667.0	105 ± 9.0 ^s		106 ± 11.5 ^s		166 ± 1.2
1000.0		46 ± 23.9 ^s		93 ± 7.5 ^s	
2000.0				Toxic	
Trial Summary	Weakly Positive	Equivocal	Equivocal	Weakly Positive	Weakly Positive
Positive Control ²		521 ± 29.8	488 ± 23.5		
Positive Control ³					
Positive Control ⁴					
Positive Control ⁵				768 ± 15.6	426 ± 8.6
Positive Control ⁶	1332 ± 20.6				

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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	23 ± 2.5	18 ± 2.5	7 ± 1.8	18 ± 3.7	9 ± 2.2
10.0	26 ± 2.1	14 ± 1.8	7 ± 1.5		9 ± 2.1
33.0	19 ± 2.9	14 ± 1.9	8 ± 2.7	18 ± 1.2	9 ± 0.9
100.0	18 ± 2.6	13 ± 1.5	10 ± 0.6	14 ± 2.9	8 ± 0.9
333.0	33 ± 3.3	14 ± 2.3	8 ± 0.7	15 ± 0.7	8 ± 2.1
500.0		10 ± 1.2 ^s			
667.0	14 ± 7.2 ^s				
1000.0			1 ± 0.7 ^s	4 ± 4.0 ^s	3 ± 3.0 ^s
2000.0				0 ± 0.0 ^s	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					101 ± 2.3
Positive Control ³	268 ± 12.0	265 ± 10.9			
Positive Control ⁵					
Positive Control ⁶			171 ± 9.5	204 ± 8.1	

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	18 ± 0.3
10.0	
33.0	21 ± 5.5
100.0	14 ± 3.2
333.0	15 ± 1.8
500.0	
667.0	
1000.0	9 ± 1.2 ^s
2000.0	Toxic
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁵	122 ± 9.8
Positive Control ⁶	

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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	98 ± 2.7	95 ± 3.7	109 ± 6.3	113 ± 1.5	117 ± 2.2
10.0	103 ± 6.1	99 ± 4.2	123 ± 6.5		110 ± 4.3
33.0	100 ± 2.6	106 ± 7.3	116 ± 5.8	144 ± 5.5	106 ± 8.2
100.0	92 ± 4.2	95 ± 3.5	115 ± 6.1	110 ± 6.4	101 ± 7.4
200.0					
333.0	86 ± 4.4 ^s	91 ± 4.0	101 ± 4.7 ^s	125 ± 1.2	99 ± 9.2 ^s
334.0					
500.0	72 ± 7.8 ^s	52 ± 1.7 ^s			
667.0					
1000.0			11 ± 11.0 ^s	49 ± 24.8 ^s	0 ± 0.0 ^s
2000.0				Toxic	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁷	1115 ± 45.8	1238 ± 51.8			
Positive Control ⁴					234 ± 4.8
Positive Control ⁶			3709 ± 109.7	547 ± 8.3	
Positive Control ⁸					
Positive Control ⁹					

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Strain: TA97

Dose (ug/Plate)	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	101 ± 3.4	125 ± 17.7	161 ± 2.7
10.0			
33.0	97 ± 6.0	126 ± 3.3	152 ± 10.5
100.0	108 ± 4.4	179 ± 6.8	142 ± 7.5
200.0	113 ± 3.8		144 ± 3.8
333.0		208 ± 13.0	
334.0	102 ± 8.7		131 ± 7.0
500.0			
667.0	85 ± 4.2 ^s		121 ± 8.5 ^s
1000.0		77 ± 4.1 ^s	
2000.0		Toxic	
Trial Summary	Negative	Equivocal	Negative
Positive Control ⁷			
Positive Control ⁴	678 ± 24.0		
Positive Control ⁶			
Positive Control ⁸		915 ± 80.5	1151 ± 6.1
Positive Control ⁹			

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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	17 ± 2.2	26 ± 3.0	29 ± 3.5	34 ± 2.1	29 ± 4.0
10.0	22 ± 1.0	22 ± 2.3	30 ± 3.2		30 ± 3.1
33.0	18 ± 3.2	21 ± 0.9	27 ± 5.3	35 ± 1.5	25 ± 2.0
100.0	16 ± 2.9	16 ± 2.6	29 ± 6.1	30 ± 1.9	29 ± 1.5
333.0		18 ± 4.2	31 ± 4.4		30 ± 3.7
334.0	19 ± 2.5			32 ± 2.5	
500.0		12 ± 2.1 ^s			
667.0	Toxic				
1000.0			6 ± 3.1 ^s	30 ± 1.9 ^s	7 ± 3.7 ^s
2000.0				8 ± 6.7 ^s	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ¹⁰					288 ± 15.4
Positive Control ²			444 ± 20.3		
Positive Control ⁵				365 ± 6.2	
Positive Control ¹¹	343 ± 16.3	271 ± 6.9			

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	31 ± 2.4
10.0	
33.0	34 ± 6.6
100.0	39 ± 1.9
333.0	
334.0	31 ± 5.7
500.0	
667.0	
1000.0	23 ± 3.2 ^s
2000.0	21 ± 6.5 ^s
Trial Summary	Negative
Positive Control ¹⁰	
Positive Control ²	63 ± 3.5
Positive Control ⁵	
Positive Control ¹¹	

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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: 0.4 ug/Plate 2-Aminoanthracene

3: 0.5 ug/Plate Sodium Azide

4: 0.75 ug/Plate 2-Aminoanthracene

5: 1.0 ug/Plate 2-Aminoanthracene

6: 2.0 ug/Plate 2-Aminoanthracene

7: 0.05 ug/Plate Solvent

8: 2.5 ug/Plate 2-Aminoanthracene

9: 24.0 ug/Plate 9-Aminoacridine

10: 0.2 ug/Plate 2-Aminoanthracene

11: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****