

Experiment Number: 506811

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

G06: Ames Summary Data

Test Compound: **DL-menthol**

CAS Number: **89-78-1**

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

Time Report Requested: **10:44:15**

NTP Study Number:

506811

Study Result:

Negative

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Test Compound: DL-menthol

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Date Report Requested: 09/12/2018

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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	121 ± 9.0	161 ± 6.6	133 ± 7.4	172 ± 6.1	113 ± 7.2
1.0	122 ± 9.6				
3.0	127 ± 7.3	158 ± 8.3	147 ± 6.9		131 ± 8.8
10.0	112 ± 5.3	142 ± 6.2	141 ± 2.6	169 ± 8.1	118 ± 7.0
33.0	108 ± 4.1	142 ± 4.1	136 ± 1.8	173 ± 5.7	123 ± 4.5
100.0	107 ± 16.0	127 ± 2.2	144 ± 4.6	165 ± 8.2	125 ± 8.8
166.0		115 ± 9.7			
333.0			117 ± 10.4	132 ± 14.9	98 ± 9.0
666.0				126 ± 16.7	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²			486 ± 10.2	319 ± 23.8	1344 ± 103.2
Positive Control ³	455 ± 47.7	425 ± 17.1			

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	167 ± 3.8
1.0	
3.0	
10.0	134 ± 20.6
33.0	155 ± 13.5
100.0	150 ± 18.5
166.0	
333.0	129 ± 2.6
666.0	112 ± 6.9
Trial Summary	Negative
Positive Control ²	1074 ± 17.1
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	22 ± 1.8	19 ± 1.2	8 ± 1.7	15 ± 1.5	12 ± 3.3
1.0	23 ± 3.5				
3.0	18 ± 1.2	16 ± 1.2	13 ± 1.9		11 ± 2.8
10.0	22 ± 2.3	21 ± 1.7	9 ± 1.9	12 ± 1.8	15 ± 0.3
33.0	20 ± 1.0	16 ± 0.6	11 ± 1.2	13 ± 0.9	13 ± 1.0
100.0	18 ± 0.9	16 ± 0.9	12 ± 3.2	14 ± 0.9	9 ± 1.8
166.0		16 ± 2.5			
333.0			8 ± 2.3	12 ± 1.5	6 ± 2.8
666.0				13 ± 2.0	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ³	332 ± 18.8	473 ± 30.2			
Positive Control ⁴			158 ± 13.1	201 ± 22.0	448 ± 20.8

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	13 ± 2.0
1.0	
3.0	
10.0	11 ± 1.8
33.0	8 ± 2.0
100.0	14 ± 0.3
166.0	
333.0	13 ± 2.8
666.0	10 ± 1.9
Trial Summary	Negative
Positive Control ³	
Positive Control ⁴	397 ± 16.0

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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	134 ± 4.0	178 ± 5.5	185 ± 8.7	202 ± 3.8	151 ± 5.0
1.0	132 ± 7.5				
3.0	124 ± 0.6	188 ± 10.1	195 ± 3.2		169 ± 4.1
10.0	130 ± 11.1	180 ± 1.7	184 ± 14.1	206 ± 1.5	163 ± 6.9
33.0	123 ± 14.0	175 ± 4.6	186 ± 6.5	204 ± 2.2	169 ± 3.7
100.0	126 ± 12.3	195 ± 5.6	170 ± 1.7	194 ± 4.5	167 ± 11.5
166.0		168 ± 10.7			
333.0			145 ± 10.0	139 ± 13.2 ^s	141 ± 4.0
666.0				144 ± 18.1 ^s	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴			958 ± 38.2	468 ± 10.3	1519 ± 14.7
Positive Control ⁵	1229 ± 27.9	1496 ± 76.9			

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Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	194 ± 3.8
1.0	
3.0	
10.0	171 ± 15.7
33.0	190 ± 7.4
100.0	185 ± 5.5
166.0	
333.0	123 ± 7.2 ^s
666.0	139 ± 5.0 ^s
Trial Summary	Negative
Positive Control ⁴	1144 ± 31.5
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 10% Hamster S9
Vehicle Control ¹	21 ± 2.1	25 ± 2.4	37 ± 5.2	29 ± 0.3	31 ± 1.9
1.0	17 ± 1.2				
3.0	21 ± 1.7	20 ± 0.3	30 ± 1.8		38 ± 3.0
10.0	18 ± 0.7	29 ± 5.1	36 ± 5.7	32 ± 0.3	38 ± 4.3
33.0	18 ± 1.2	27 ± 0.9	33 ± 1.9	32 ± 4.5	40 ± 1.9
100.0	21 ± 2.8	26 ± 2.6	26 ± 0.6	28 ± 1.2	35 ± 3.0
166.0		25 ± 0.3			
333.0			32 ± 2.4	26 ± 2.4	27 ± 0.3
666.0				18 ± 2.1	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²			297 ± 21.7	233 ± 18.5	1367 ± 25.7
Positive Control ⁶	1437 ± 25.8	1587 ± 35.7			

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	27 ± 1.8
1.0	
3.0	
10.0	29 ± 0.9
33.0	30 ± 0.9
100.0	25 ± 3.8
166.0	
333.0	19 ± 4.4
666.0	15 ± 1.8
Trial Summary	Negative
Positive Control ²	510 ± 17.6
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: Dimethyl Sulfoxide

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 ****