

Experiment Number: 053802

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Benomyl

CAS Number: 17804-35-2

Date Report Requested: 09/15/2018

Time Report Requested: 02:51:13

NTP Study Number:

053802

Study Result:

Negative

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Test Compound: Benomyl

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Date Report Requested: 09/15/2018

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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 ± 7.7	137 ± 4.9	136 ± 8.1	144 ± 14.6	125 ± 13.7
3.0		142 ± 10.6			
10.0		119 ± 17.2			
33.0	137 ± 9.8	113 ± 18.1	139 ± 9.5	137 ± 8.8	108 ± 10.7
100.0	117 ± 13.3	118 ± 9.9	120 ± 10.8	124 ± 11.0	130 ± 17.7
333.0	115 ± 5.7	117 ± 12.4	129 ± 5.0	134 ± 13.7	105 ± 6.3
666.0	71 ± 3.5 ^P			112 ± 1.7 ^P	
1000.0	66 ± 10.1 ^P		106 ± 5.1 ^P	122 ± 1.7 ^P	84 ± 5.8 ^P
1666.0			86 ± 2.8 ^P		61 ± 32.7 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					479 ± 19.2
Positive Control ³			390 ± 22.9		
Positive Control ⁴	279 ± 9.0	478 ± 8.8			
Positive Control ⁵				300 ± 9.0	

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	138 ± 0.9
3.0	
10.0	
33.0	122 ± 6.1
100.0	116 ± 8.1
333.0	121 ± 10.1
666.0	124 ± 5.0 ^p
1000.0	127 ± 9.6 ^p
1666.0	
Trial Summary	Negative
Positive Control ²	
Positive Control ³	424 ± 2.9
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	22 ± 5.0	17 ± 2.5	12 ± 2.0	18 ± 2.7	5 ± 1.3
33.0	26 ± 3.0	20 ± 1.0	11 ± 1.8	23 ± 3.0	5 ± 0.9
100.0	24 ± 4.3	18 ± 2.2	12 ± 2.6	13 ± 2.6	5 ± 1.2
333.0	17 ± 2.9	17 ± 1.2	11 ± 2.5	17 ± 2.3	4 ± 1.0
666.0	13 ± 0.7 ^P			9 ± 1.0 ^P	
1000.0	13 ± 1.8 ^P	13 ± 0.7 ^P	8 ± 1.8 ^P	8 ± 2.3 ^P	6 ± 0.3 ^P
1666.0		12 ± 1.8 ^P	5 ± 0.7 ^P		4 ± 1.2 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ³					202 ± 9.5
Positive Control ⁴	718 ± 13.2	444 ± 4.8			
Positive Control ⁶			190 ± 12.5	240 ± 7.9	

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	10 ± 2.4
33.0	14 ± 2.5
100.0	13 ± 1.5
333.0	7 ± 1.3
666.0	8 ± 1.2 ^p
1000.0	11 ± 1.3 ^p
1666.0	
Trial Summary	Negative
Positive Control ³	
Positive Control ⁴	
Positive Control ⁶	389 ± 29.8

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Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	8 ± 1.2	5 ± 0.9	10 ± 4.6	12 ± 1.5	5 ± 0.9
33.0	8 ± 3.3	5 ± 1.2	7 ± 1.2	11 ± 1.2	3 ± 1.0
100.0	6 ± 1.5	6 ± 0.3	9 ± 0.3	14 ± 0.7	10 ± 1.8
333.0	5 ± 0.3	5 ± 2.0	9 ± 2.3	9 ± 2.0	8 ± 1.0
666.0	5 ± 0.3 ^p			7 ± 0.6 ^p	
1000.0	3 ± 0.9 ^p	4 ± 1.2 ^p	5 ± 0.3 ^p	4 ± 1.2 ^p	8 ± 1.3 ^p
1666.0		3 ± 1.0 ^p	10 ± 0.9 ^p		5 ± 1.2 ^p
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					52 ± 1.8
Positive Control ³			45 ± 2.6		
Positive Control ⁶				43 ± 6.5	
Positive Control ⁷	639 ± 37.0	473 ± 11.6			

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Strain: TA1537

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	15 ± 2.0
33.0	14 ± 6.1
100.0	8 ± 1.2
333.0	11 ± 1.7
666.0	10 ± 0.7 ^P
1000.0	22 ± 1.5 ^P
1666.0	
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁶	52 ± 8.7
Positive Control ⁷	

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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	155 ± 5.5	174 ± 6.6	145 ± 7.7	195 ± 4.0	180 ± 10.3
3.0			132 ± 10.8		
10.0		195 ± 10.4	156 ± 10.0	183 ± 27.8	
33.0	171 ± 6.4	182 ± 2.3	163 ± 13.1	179 ± 15.9	189 ± 7.8
100.0	161 ± 7.2	181 ± 11.7	113 ± 11.8	171 ± 25.8	196 ± 11.8
333.0	103 ± 3.5	161 ± 22.7	16 ± 3.2	125 ± 63.0	186 ± 12.3
666.0	44 ± 0.9 ^P	142 ± 23.5 ^P	59 ± 13.7 ^P	67 ± 34.4 ^P	85 ± 19.7 ^P
1000.0	12 ± 2.4 ^P		53 ± 18.3 ^P		7 ± 2.6 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					
Positive Control ³				364 ± 5.7	
Positive Control ⁶					492 ± 34.8
Positive Control ⁷	1220 ± 80.0	823 ± 90.6	959 ± 21.3		

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Strain: TA97

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	205 ± 10.1	171 ± 2.9	173 ± 17.1	183 ± 16.0
3.0	217 ± 6.6			219 ± 10.3
10.0	219 ± 5.0	184 ± 5.4		225 ± 3.8
33.0	226 ± 1.5	196 ± 4.8	114 ± 57.9	193 ± 10.2
100.0	220 ± 2.3	169 ± 9.0	115 ± 57.5	199 ± 20.8
333.0	148 ± 33.8	169 ± 7.9	42 ± 42.0 ^x	69 ± 36.0
666.0	98 ± 25.1 ^p	91 ± 9.5 ^p	128 ± 12.3 ^p	136 ± 20.6 ^p
1000.0	46 ± 16.6 ^p		36 ± 12.5 ^p	127 ± 16.9 ^p
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ²		386 ± 13.6		
Positive Control ³				317 ± 6.7
Positive Control ⁶	427 ± 20.3		521 ± 20.3	
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	16 ± 1.5	21 ± 3.2	26 ± 5.3	23 ± 2.9	29 ± 1.9
33.0	18 ± 2.2	16 ± 0.9	26 ± 4.7	31 ± 3.5	29 ± 1.8
100.0	15 ± 1.2	13 ± 2.3	29 ± 3.8	24 ± 4.0	34 ± 4.4
333.0	15 ± 2.6	19 ± 5.2	29 ± 4.6	29 ± 1.9	30 ± 5.2
666.0	9 ± 0.7 ^P			25 ± 2.1 ^P	
1000.0	7 ± 0.9 ^P	14 ± 0.9 ^P	21 ± 1.2 ^P	20 ± 1.5 ^P	27 ± 2.3 ^P
1666.0		14 ± 1.5 ^P	20 ± 3.1 ^P		21 ± 3.2 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					339 ± 25.9
Positive Control ³			201 ± 18.3	142 ± 4.3	
Positive Control ⁸	382 ± 26.2	580 ± 22.0			

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	26 ± 7.1
33.0	25 ± 2.6
100.0	34 ± 2.8
333.0	34 ± 1.7
666.0	19 ± 2.8 ^p
1000.0	24 ± 3.8 ^p
1666.0	
Trial Summary	Negative
Positive Control ²	
Positive Control ³	261 ± 10.0
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: Dimethyl Sulfoxide

2: 0.5 ug/Plate 2-Aminoanthracene

3: 1.0 ug/Plate 2-Aminoanthracene

4: 1.0 ug/Plate Sodium Azide

5: 2.0 ug/Plate 2-Aminoanthracene

6: 2.5 ug/Plate 2-Aminoanthracene

7: 50.0 ug/Plate 9-Aminoacridine

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

p: Precipitate

x: Slight Toxicity and Precipitate

** END OF REPORT **