

Experiment Number: 918305

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Theobromine

CAS Number: 83-67-0

Date Report Requested: 09/17/2018

Time Report Requested: 02:54:19

NTP Study Number:

918305

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	101 ± 11.0	101 ± 1.9	130 ± 9.5	110 ± 13.6	119 ± 6.7
100.0	88 ± 5.9	88 ± 9.9	110 ± 6.7	121 ± 5.4	98 ± 1.5
333.0	101 ± 8.9	101 ± 2.1	114 ± 4.7	117 ± 2.9	124 ± 0.5
1000.0	84 ± 2.3	96 ± 2.7	130 ± 5.8	119 ± 1.5	120 ± 7.2
3333.0	82 ± 4.7	95 ± 4.7	119 ± 9.0	102 ± 6.8	119 ± 8.1
10000.0	77 ± 6.7	95 ± 12.2	93 ± 12.7	115 ± 5.6	108 ± 11.9
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					738 ± 50.1
Positive Control ³	481 ± 17.4	642 ± 14.2			
Positive Control ⁴			1120 ± 34.1		
Positive Control ⁵					
Positive Control ⁶				1202 ± 61.9	

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	109 ± 4.9
100.0	98 ± 2.2
333.0	110 ± 5.4
1000.0	99 ± 5.7
3333.0	100 ± 5.8
10000.0	89 ± 3.4
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	
Positive Control ⁵	540 ± 20.0
Positive Control 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	6 ± 0.7	13 ± 1.8	12 ± 3.3	12 ± 2.2	16 ± 3.0
100.0	7 ± 0.3	8 ± 1.2	11 ± 1.5	12 ± 1.2	11 ± 1.0
333.0	8 ± 1.8	11 ± 1.7	13 ± 1.2	12 ± 1.2	12 ± 1.3
1000.0	6 ± 0.3	11 ± 2.3	9 ± 2.2	9 ± 0.3	11 ± 2.6
3333.0	7 ± 0.3	18 ± 2.4	11 ± 3.2	10 ± 1.0	12 ± 1.5
10000.0	7 ± 0.7	12 ± 2.0	11 ± 0.6	0 ± 0.0	12 ± 0.6
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					81 ± 5.8
Positive Control ³	218 ± 9.5	373 ± 11.1			
Positive Control ⁵					
Positive Control ⁶			168 ± 5.9	133 ± 1.5	

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	9 ± 1.5
100.0	8 ± 1.3
333.0	13 ± 2.4
1000.0	9 ± 0.6
3333.0	8 ± 1.2
10000.0	7 ± 1.2
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁵	72 ± 7.6
Positive Control ⁶	

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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	Without S9	Without S9	With 10% Rat S9
Vehicle Control ¹	137 ± 4.0	156 ± 2.6	130 ± 4.6	234 ± 5.9	142 ± 1.5
100.0	152 ± 0.7	159 ± 10.7	125 ± 14.2	227 ± 11.7	149 ± 4.7
333.0	137 ± 3.3	135 ± 4.1	125 ± 3.2	233 ± 11.2	133 ± 2.7
1000.0	132 ± 6.0	149 ± 6.7	128 ± 6.6	219 ± 13.3	133 ± 6.0
3333.0	130 ± 0.9	138 ± 5.6	134 ± 10.6	214 ± 11.6	105 ± 7.9
10000.0	134 ± 3.5	103 ± 3.2	97 ± 13.9	188 ± 12.5	90 ± 4.9
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴					
Positive Control ⁶					2023 ± 106.9
Positive Control ⁷	231 ± 8.0	262 ± 9.2	209 ± 9.5	573 ± 16.1	

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Strain: TA97

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	201 ± 1.7	144 ± 5.9	149 ± 6.4
100.0	190 ± 11.9	146 ± 9.3	156 ± 7.1
333.0	187 ± 4.9	144 ± 3.8	141 ± 4.9
1000.0	178 ± 9.2	132 ± 5.8	149 ± 10.4
3333.0	156 ± 11.3	133 ± 5.7	145 ± 7.9
10000.0	148 ± 8.4	117 ± 9.2	138 ± 11.2
Trial Summary	Negative	Negative	Negative
Positive Control ⁴		1370 ± 12.2	
Positive Control ⁶	890 ± 46.5		1246 ± 22.0
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	18 ± 1.8	21 ± 6.4	20 ± 2.6	27 ± 2.7	24 ± 2.0
100.0	15 ± 2.5	12 ± 1.9	22 ± 3.1	31 ± 2.4	20 ± 2.7
333.0	18 ± 1.2	19 ± 4.1	20 ± 0.3	26 ± 1.5	22 ± 2.4
1000.0	16 ± 1.5	15 ± 0.0	26 ± 1.0	20 ± 0.9	18 ± 0.9
3333.0	16 ± 1.2	18 ± 1.2	19 ± 2.0	19 ± 0.7	22 ± 2.6
10000.0	20 ± 0.9	16 ± 2.6	18 ± 1.7	21 ± 2.6	14 ± 2.1
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²			378 ± 13.9		808 ± 35.8
Positive Control ⁸	272 ± 15.3	412 ± 8.8			
Positive Control ⁵				370 ± 29.7	

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	30 ± 2.7
100.0	24 ± 1.5
333.0	23 ± 5.1
1000.0	21 ± 1.9
3333.0	21 ± 2.6
10000.0	16 ± 0.9
Trial Summary	Negative
Positive Control ²	
Positive Control ⁸	
Positive Control ⁵	525 ± 34.7

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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: 0.4 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: 24.0 ug/Plate 9-Aminoacridine

8: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine

** END OF REPORT **