

Experiment Number: 514268

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

G06: Ames Summary Data

Test Compound: **Codeine phosphate**

CAS Number: 52-28-8

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

Time Report Requested: **12:00:15**

NTP Study Number:

514268

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	102 ± 5.7	98 ± 6.7	107 ± 4.0	115 ± 8.1	110 ± 8.7
100.0	100 ± 6.1	97 ± 5.6	89 ± 8.3	101 ± 5.9	102 ± 9.9
333.0	87 ± 3.0	90 ± 7.0	95 ± 3.3	116 ± 3.8	112 ± 10.9
1000.0	89 ± 7.6	104 ± 13.9	86 ± 5.0	121 ± 9.2	111 ± 5.8
3333.0	97 ± 1.7	92 ± 4.4	100 ± 2.6	110 ± 3.8	97 ± 2.4
10000.0	107 ± 3.2	93 ± 3.5	104 ± 8.7	107 ± 13.1	114 ± 11.3
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²	558 ± 19.2	365 ± 14.2			
Positive Control ³			1260 ± 14.2	380 ± 18.7	1649 ± 10.3

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	120 ± 6.1
100.0	120 ± 5.1
333.0	113 ± 7.2
1000.0	119 ± 10.6
3333.0	115 ± 1.5
10000.0	114 ± 7.1
Trial Summary	Negative
Positive Control ²	
Positive Control ³	549 ± 4.8

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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 ± 2.0	8 ± 2.0	10 ± 1.2	12 ± 1.2	7 ± 0.7
100.0	19 ± 3.5	5 ± 0.9	10 ± 0.3	8 ± 0.9	8 ± 1.0
333.0	24 ± 3.0	7 ± 1.5	5 ± 0.3	10 ± 1.5	9 ± 2.3
1000.0	26 ± 1.2	4 ± 0.3	10 ± 2.3	10 ± 0.3	8 ± 1.5
3333.0	26 ± 2.3	4 ± 1.5	8 ± 0.7	7 ± 1.5	5 ± 1.5
10000.0	30 ± 0.9	8 ± 1.0	6 ± 0.9	7 ± 0.3	8 ± 2.2
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²	485 ± 17.1	274 ± 5.5			
Positive Control ⁴			281 ± 3.8	155 ± 3.5	407 ± 16.7

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	10 ± 1.9
100.0	6 ± 1.2
333.0	9 ± 1.7
1000.0	10 ± 3.2
3333.0	8 ± 1.2
10000.0	7 ± 0.3
Trial Summary	Negative
Positive Control ²	
Positive Control ⁴	132 ± 4.5

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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	136 ± 6.6	124 ± 14.5	180 ± 18.7	170 ± 16.3	175 ± 6.0
100.0	137 ± 2.6	121 ± 8.5	176 ± 7.4	215 ± 10.4	149 ± 15.5
333.0	115 ± 8.6	110 ± 8.0	190 ± 14.9	199 ± 6.5	141 ± 3.6
1000.0	138 ± 6.4	134 ± 10.4	198 ± 12.1	192 ± 9.0	146 ± 16.0
3333.0	128 ± 0.9	121 ± 15.9	193 ± 10.3	194 ± 18.4	152 ± 2.3
10000.0	148 ± 12.5	141 ± 14.8	196 ± 6.0	199 ± 7.6	153 ± 16.5
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴			1070 ± 28.0	558 ± 19.4	1346 ± 93.5
Positive Control ⁵	1931 ± 109.1	2102 ± 134.1			

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Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	160 ± 10.2
100.0	154 ± 5.6
333.0	174 ± 25.4
1000.0	194 ± 22.8
3333.0	170 ± 14.5
10000.0	173 ± 25.5
Trial Summary	Negative
Positive Control ⁴	1302 ± 28.0
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	13 ± 1.9	18 ± 3.5	28 ± 3.2	18 ± 1.2	27 ± 5.5
100.0	13 ± 1.0	15 ± 1.3	32 ± 0.6	20 ± 2.8	30 ± 2.3
333.0	19 ± 3.8	12 ± 3.5	32 ± 2.5	23 ± 1.3	28 ± 2.6
1000.0	19 ± 1.2	15 ± 1.5	30 ± 5.3	16 ± 5.7	36 ± 0.9
3333.0	17 ± 3.8	17 ± 0.9	32 ± 1.7	27 ± 5.5	32 ± 3.0
10000.0	26 ± 1.2	17 ± 3.7	36 ± 2.0	20 ± 4.6	39 ± 2.0
Trial Summary	Equivocal	Negative	Negative	Negative	Negative
Positive Control ³			823 ± 16.7	142 ± 10.5	1029 ± 20.0
Positive Control ⁶	1278 ± 52.0	1824 ± 19.1			

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	19 ± 2.6
100.0	22 ± 3.4
333.0	21 ± 6.6
1000.0	21 ± 1.5
3333.0	26 ± 2.7
10000.0	18 ± 5.9
Trial Summary	Negative
Positive Control ³	338 ± 7.9
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: Water

2: 1.0 ug/Plate Sodium Azide

3: 1.0 ug/Plate 2-Aminoanthracene

4: 2.5 ug/Plate 2-Aminoanthracene

5: 50.0 ug/Plate 9-Aminoacridine

6: 5.0 ug/Plate 4-Nitro-O-Phenylenediamine

**** END OF REPORT ****