

Experiment Number: 357262

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

G06: Ames Summary Data

Test Compound: **Casanthranol (cascara sagrada extract)**

CAS Number: **8024-48-4**

Date Report Requested: **09/13/2018**

Time Report Requested: **20:03:24**

NTP Study Number:

357262

Study Result:

Positive

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control ¹	113 ± 0.9	84 ± 2.6	82 ± 1.9	144 ± 4.1	116 ± 7.8
100.0	119 ± 7.2			148 ± 5.6	105 ± 3.7
333.0	116 ± 3.8			153 ± 8.4	120 ± 10.6
1000.0	98 ± 7.5	84 ± 2.3	93 ± 11.0	154 ± 4.7	133 ± 8.1
2000.0			85 ± 0.9		
3333.0	110 ± 3.5	98 ± 4.2		123 ± 14.0	116 ± 8.1
4000.0			94 ± 2.0		
6000.0			123 ± 12.1		
6666.0		139 ± 6.4			
8000.0			114 ± 14.0		
10000.0	177 ± 2.0	104 ± 4.4	70 ± 4.2	147 ± 10.4	127 ± 13.0
16666.0		Toxic			
Trial Summary	Equivocal	Equivocal	Equivocal	Negative	Negative
Positive Control ²					590 ± 26.3
Positive Control ³				393 ± 22.6	
Positive Control ⁴	1384 ± 50.2	934 ± 32.3	988 ± 27.0		

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Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control ¹	5 ± 1.0	4 ± 0.3	9 ± 1.8	5 ± 1.0
100.0		4 ± 1.2	10 ± 2.8	5 ± 0.3
333.0		4 ± 1.7	10 ± 0.9	6 ± 2.1
1000.0	3 ± 0.0	5 ± 2.0	14 ± 1.2	8 ± 2.0
2000.0	6 ± 1.2			
3333.0		8 ± 1.3	6 ± 0.9	8 ± 1.2
4000.0	7 ± 0.6			
6000.0	6 ± 2.0			
8000.0	4 ± 1.9			
10000.0	6 ± 2.0	6 ± 1.5	8 ± 1.0	8 ± 0.3
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ³				233 ± 13.3
Positive Control ⁴	1290 ± 38.8	1124 ± 72.4		
Positive Control ⁵			99 ± 3.0	

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Date Report Requested: **09/13/2018**

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Strain: TA1537

Dose (ug/Plate)	Without S9
Vehicle Control ¹	3 ± 0.7
333.0	4 ± 1.7
1000.0	6 ± 0.7
1666.0	3 ± 0.7
3333.0	6 ± 1.8
6666.0	6 ± 2.8
10000.0	4 ± 0.9
Trial Summary	Negative
Positive Control ⁶	102 ± 4.0

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Date Report Requested: 09/13/2018

Test Type: **Genetic Toxicology - Bacterial
Mutagenicity**Test Compound: **Casanthranol (cascara sagrada extract)**

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CAS Number: 8024-48-4

Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control ¹	187 ± 13.4	154 ± 7.8	151 ± 9.4	221 ± 8.1	155 ± 4.9
100.0	162 ± 2.3			208 ± 18.4	144 ± 7.8
333.0	178 ± 6.4	163 ± 5.2	161 ± 12.7	239 ± 15.4	162 ± 5.9
1000.0	187 ± 2.7	155 ± 9.0	166 ± 1.0	232 ± 12.0	182 ± 9.5
1666.0			162 ± 14.1		
3333.0	186 ± 10.8	197 ± 5.2	196 ± 1.2	185 ± 18.3	188 ± 1.5
6666.0		242 ± 3.5	224 ± 1.7		
10000.0	285 ± 10.9	278 ± 4.3	448 ± 26.6	191 ± 11.7	149 ± 20.9
Trial Summary	Equivocal	Weakly Positive	Positive	Negative	Negative
Positive Control ²					470 ± 25.1
Positive Control ³				349 ± 35.1	
Positive Control ⁶	385 ± 15.8	410 ± 8.5	348 ± 19.4		

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Test Compound: Casanthranol (cascara sagrada extract)

CAS Number: 8024-48-4

Date Report Requested: 09/13/2018

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Strain: TA98

Dose (ug/Plate)	Without S9	With 5% Rat S9	With 10% Rat S9	With 30% Rat S9	With 30% Rat S9
Vehicle Control ¹	22 ± 2.6	31 ± 5.5	21 ± 1.2	41 ± 7.4	24 ± 2.2
100.0	16 ± 4.6			34 ± 3.5	
333.0	21 ± 2.6			35 ± 1.9	
1000.0	18 ± 3.1	30 ± 2.8	29 ± 3.4	31 ± 0.9	28 ± 1.7
2000.0		34 ± 1.5	18 ± 0.6		
3333.0	22 ± 3.3			29 ± 5.0	30 ± 1.7
4000.0		26 ± 3.2	31 ± 5.5		
6000.0		24 ± 3.4	21 ± 2.3		
6666.0					47 ± 2.2
8000.0		31 ± 5.0	20 ± 4.8		
10000.0	7 ± 3.2 ^s	28 ± 3.1	23 ± 1.3	73 ± 5.5	37 ± 1.5
16666.0					25 ± 3.2
Trial Summary	Negative	Negative	Negative	Negative	Equivocal
Positive Control ²		582 ± 15.1	421 ± 3.2	138 ± 13.3	144 ± 5.8
Positive Control ⁷	515 ± 29.5				

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Strain: TA98

Dose (ug/Plate)	With 30% Rat S9	With 30% Hamster S9
Vehicle Control ¹	26 ± 5.8	23 ± 1.3
100.0		25 ± 2.6
333.0		22 ± 4.6
1000.0	27 ± 0.9	25 ± 0.7
2000.0	22 ± 2.5	
3333.0		28 ± 3.4
4000.0	25 ± 2.9	
6000.0	33 ± 3.6	
6666.0		
8000.0	21 ± 3.5	
10000.0	30 ± 5.9	20 ± 2.3
16666.0		
Trial Summary	Negative	Negative
Positive Control ²	167 ± 16.8	482 ± 30.1
Positive Control 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: 1.0 ug/Plate 2-Aminoanthracene

3: 2.5 ug/Plate 2-Aminoanthracene

4: 5.0 ug/Plate Sodium Azide

5: 5.0 ug/Plate 2-Aminoanthracene

6: 50.0 ug/Plate 9-Aminoacridine

7: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****