

Experiment Number: A14419

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

**G06: Ames Summary Data**

Test Compound: **Trigonelline**

CAS Number: **535-83-1**

Date Report Requested: **09/16/2018**

Time Report Requested: **01:11:49**

**NTP Study Number:**

A14419

**Study Result:**

Negative

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control <sup>1</sup>	136 ± 8.8	116 ± 1.9	139 ± 4.2	158 ± 7.9	145 ± 14.5
100.0	119 ± 6.4	114 ± 1.7	161 ± 17.6	174 ± 13.9	142 ± 12.0
333.0	140 ± 16.4	115 ± 8.7	109 ± 7.6	152 ± 3.8	161 ± 7.4
1000.0	130 ± 4.9	120 ± 7.7	113 ± 10.8	163 ± 6.7	145 ± 6.3
3333.0	109 ± 6.7	101 ± 5.8	116 ± 8.1	161 ± 5.6	152 ± 3.3
10000.0	111 ± 6.7	120 ± 6.1	110 ± 4.1	145 ± 5.8	151 ± 5.2
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					
Positive Control <sup>3</sup>	539 ± 22.7	414 ± 15.4	366 ± 3.7		
Positive Control <sup>4</sup>				419 ± 34.1	
Positive Control <sup>5</sup>					
Positive Control <sup>6</sup>					816 ± 49.5

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Strain: TA100

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	150 ± 7.4	164 ± 13.2	138 ± 7.7	158 ± 15.9
100.0	154 ± 5.0	165 ± 7.5	133 ± 6.4	151 ± 17.5
333.0	149 ± 7.5	155 ± 7.8	131 ± 7.2	146 ± 8.6
1000.0	139 ± 5.3	154 ± 11.3	146 ± 7.3	127 ± 5.8
3333.0	153 ± 15.7	152 ± 4.6	136 ± 6.1	143 ± 5.0
10000.0	155 ± 13.8	140 ± 10.1	129 ± 5.7	147 ± 0.7
Trial Summary	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>		362 ± 3.2		
Positive Control <sup>3</sup>				
Positive Control <sup>4</sup>				
Positive Control <sup>5</sup>			456 ± 28.9	477 ± 3.7
Positive Control <sup>6</sup>	928 ± 83.6			

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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 <sup>1</sup>	10 ± 0.3	12 ± 1.0	10 ± 1.5	13 ± 1.9	11 ± 2.5
100.0	8 ± 3.5	13 ± 1.8	11 ± 0.6	16 ± 4.3	13 ± 3.2
333.0	9 ± 1.0	12 ± 3.2	13 ± 2.7	12 ± 0.3	14 ± 1.5
1000.0	9 ± 0.9	9 ± 1.2	13 ± 2.8	19 ± 4.5	12 ± 2.0
3333.0	7 ± 1.0	7 ± 1.2	10 ± 0.3	17 ± 2.5	14 ± 2.0
10000.0	11 ± 2.3	10 ± 2.0	12 ± 1.8	12 ± 1.2	11 ± 0.7
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					33 ± 3.2
Positive Control <sup>3</sup>	318 ± 2.8	210 ± 19.1			
Positive Control <sup>5</sup>					
Positive Control <sup>6</sup>			178 ± 2.3	157 ± 7.2	

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Strain: TA1535

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Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control <sup>1</sup>	15 ± 2.9
100.0	15 ± 1.7
333.0	15 ± 1.5
1000.0	12 ± 0.3
3333.0	12 ± 0.7
10000.0	16 ± 4.1
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	
Positive Control <sup>5</sup>	88 ± 8.1
Positive Control <sup>6</sup>	

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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control <sup>1</sup>	139 ± 4.9	107 ± 9.9	155 ± 9.5	156 ± 2.9	211 ± 5.0
10.0				146 ± 7.7	
33.0				173 ± 12.6	
100.0	144 ± 8.5	107 ± 4.9	191 ± 6.1	150 ± 4.6	211 ± 4.2
333.0	131 ± 6.2	108 ± 10.1	142 ± 9.8	161 ± 11.8	213 ± 5.0
1000.0	149 ± 4.8	96 ± 2.9	172 ± 4.1	147 ± 7.8	264 ± 5.8
3333.0	154 ± 9.1	128 ± 2.6	129 ± 16.8	163 ± 3.5	253 ± 7.1
10000.0	150 ± 8.0	123 ± 11.4	151 ± 12.7	149 ± 12.1	236 ± 16.1
Trial Summary	Negative	Negative	Equivocal	Negative	Negative
Positive Control <sup>4</sup>					
Positive Control <sup>6</sup>			1270 ± 166.4	1140 ± 43.8	462 ± 10.7
Positive Control <sup>7</sup>	420 ± 12.7	545 ± 32.0			

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Strain: TA97

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	108 ± 4.7	161 ± 11.5	148 ± 6.4
10.0		173 ± 1.5	
33.0		178 ± 7.8	
100.0	117 ± 4.7	164 ± 8.0	188 ± 9.7
333.0	155 ± 10.3	169 ± 8.1	179 ± 0.9
1000.0	192 ± 17.2	145 ± 11.3	154 ± 22.2
3333.0	227 ± 10.3	166 ± 5.2	188 ± 23.7
10000.0	261 ± 15.1	178 ± 5.6	162 ± 8.2
Trial Summary	Positive	Negative	Negative
Positive Control <sup>4</sup>	489 ± 17.0	418 ± 3.5	
Positive Control <sup>6</sup>			890 ± 53.0
Positive Control <sup>7</sup>			

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control <sup>1</sup>	13 ± 1.5	17 ± 0.9	15 ± 1.8	20 ± 0.3	23 ± 1.5
100.0	14 ± 1.5	12 ± 0.0	15 ± 3.9	21 ± 1.3	20 ± 2.9
333.0	13 ± 1.2	13 ± 1.2	15 ± 0.6	24 ± 1.5	21 ± 2.1
1000.0	13 ± 1.5	14 ± 3.8	21 ± 2.2	21 ± 2.2	17 ± 3.3
3333.0	16 ± 2.0	17 ± 1.0	14 ± 2.7	17 ± 2.1	24 ± 2.2
10000.0	17 ± 2.6	15 ± 1.3	16 ± 2.3	20 ± 0.3	21 ± 1.5
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>				175 ± 10.3	
Positive Control <sup>8</sup>	76 ± 4.1	75 ± 12.0	58 ± 5.9		
Positive Control <sup>5</sup>					257 ± 20.8



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Strain: TA98

Dose (ug/Plate)	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	28 ± 0.9	19 ± 1.2	16 ± 2.7	30 ± 3.2
100.0	29 ± 3.4	23 ± 3.2	17 ± 0.9	27 ± 0.6
333.0	28 ± 2.6	19 ± 1.0	21 ± 2.8	25 ± 4.2
1000.0	24 ± 1.8	19 ± 3.3	22 ± 1.5	25 ± 1.9
3333.0	20 ± 0.9	22 ± 4.3	19 ± 2.7	24 ± 1.5
10000.0	25 ± 3.8	21 ± 3.1	21 ± 2.9	34 ± 2.2
Trial Summary	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>		269 ± 31.3		
Positive Control <sup>8</sup>				
Positive Control <sup>5</sup>	217 ± 25.8		432 ± 17.8	453 ± 18.2

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#### LEGEND

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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: 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 \*\*