

Experiment Number: 897343

Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

**G06: Ames Summary Data**

Test Compound: o-Phenanthroline

CAS Number: 66-71-7

Date Report Requested: 09/16/2018

Time Report Requested: 22:35:10

**NTP Study Number:**

897343

**Study Result:**

Negative

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## Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control <sup>1</sup>	120 ± 4.1	106 ± 6.2	105 ± 6.1	145 ± 11.8	99 ± 4.1
0.3				157 ± 16.1	
0.33					90 ± 3.3
1.0		95 ± 7.5		144 ± 9.2	103 ± 15.7
3.3	102 ± 1.5	106 ± 9.3	87 ± 2.9	145 ± 16.2	127 ± 8.7
6.67					
10.0	104 ± 5.8	102 ± 3.1	81 ± 0.0	165 ± 2.3	141 ± 12.3
16.7					
33.0	98 ± 2.0	94 ± 4.9	65 ± 2.1	157 ± 1.8	107 ± 20.1
33.3					
66.7					
100.0	21 ± 8.7	21 ± 4.9	0 ± 0.0		
167.0					
333.0	0 ± 0.0		0 ± 0.0		
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>			1899 ± 77.9	1134 ± 213.4	2915 ± 181.0
Positive Control <sup>3</sup>					
Positive Control <sup>4</sup>	401 ± 38.1	861 ± 37.4			

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## Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	114 ± 2.3	166 ± 10.9	113 ± 12.8	119 ± 8.4
0.3				
0.33				106 ± 0.9
1.0		168 ± 9.7		85 ± 4.0
3.3	117 ± 6.6	184 ± 5.5		87 ± 7.5
6.67			102 ± 3.8	
10.0	112 ± 13.0	237 ± 7.4	112 ± 4.6	88 ± 6.8
16.7			111 ± 6.9	
33.0	137 ± 7.0	246 ± 16.7		101 ± 5.6
33.3			159 ± 16.5	
66.7			22 ± 10.5	
100.0	71 ± 23.5	263 ± 24.6	0 ± 0.0	
167.0			0 ± 0.0	
333.0	0 ± 0.0			
Trial Summary	Negative	Weakly Positive	Negative	Negative
Positive Control <sup>2</sup>	456 ± 18.3	896 ± 83.7	2007 ± 217.0	
Positive Control <sup>3</sup>				1309 ± 47.1
Positive Control <sup>4</sup>				

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## Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control <sup>1</sup>	9 ± 0.9	13 ± 1.8	5 ± 1.8	10 ± 1.5	12 ± 1.2
0.3		12 ± 1.2			10 ± 1.7
0.33			3 ± 1.2		
1.0		15 ± 1.7	5 ± 1.2		12 ± 1.3
3.3	10 ± 2.3	15 ± 0.6	2 ± 0.3	9 ± 1.7	9 ± 0.3
10.0	5 ± 0.7	13 ± 1.7	3 ± 0.3	5 ± 0.9	11 ± 1.2
33.0	4 ± 0.7	7 ± 3.2	1 ± 0.6	6 ± 1.2	13 ± 1.5
100.0	0 ± 0.0			0 ± 0.0	
333.0	0 ± 0.0			0 ± 0.0	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>5</sup>				305 ± 3.2	241 ± 16.8
Positive Control <sup>4</sup>	552 ± 23.6	842 ± 91.7	1081 ± 144.9		

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**Strain: TA1535**

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	4 ± 0.9	7 ± 2.7	16 ± 0.9
0.3			
0.33	2 ± 0.7		
1.0	2 ± 0.6		14 ± 1.9
3.3	5 ± 1.0	5 ± 0.7	13 ± 0.9
10.0	5 ± 3.4	5 ± 1.2	14 ± 0.6
33.0	6 ± 1.0	3 ± 0.0	15 ± 0.9
100.0		1 ± 0.3	9 ± 3.1
333.0		0 ± 0.0	
Trial Summary	Negative	Negative	Negative
Positive Control <sup>5</sup>	96 ± 10.7	129 ± 6.8	370 ± 51.7
Positive Control <sup>4</sup>			

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## Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control <sup>1</sup>	9 ± 2.2	12 ± 2.0	4 ± 1.3	14 ± 1.2	11 ± 1.8
0.3		6 ± 0.6			12 ± 1.2
0.33			3 ± 0.7		
1.0		10 ± 1.2	2 ± 0.6		14 ± 1.8
3.3	7 ± 1.5	9 ± 1.5	5 ± 0.6	12 ± 2.0	15 ± 1.8
10.0	4 ± 0.7	7 ± 1.9	5 ± 0.9	7 ± 0.7	14 ± 0.9
33.0	3 ± 1.5	9 ± 0.0	2 ± 0.5	5 ± 2.8	12 ± 1.7
100.0	0 ± 0.3			0 ± 0.0	
333.0	0 ± 0.0			0 ± 0.0	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>5</sup>				61 ± 2.3	489 ± 44.6
Positive Control <sup>6</sup>	174 ± 27.3	210 ± 27.9	81 ± 5.8		

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**Strain: TA1537**

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	10 ± 1.5	9 ± 0.6	17 ± 1.2	5 ± 2.8
0.3			16 ± 1.2	
0.33	7 ± 1.2			7 ± 2.8
1.0	7 ± 0.6		17 ± 1.5	10 ± 2.7
3.3	11 ± 0.3	9 ± 1.2	17 ± 1.5	6 ± 1.3
10.0	8 ± 0.9	9 ± 3.2	15 ± 1.5	8 ± 1.3
33.0	3 ± 0.7	6 ± 0.6	15 ± 1.5	9 ± 0.6
100.0		0 ± 0.0		
333.0		0 ± 0.0		
Trial Summary	Negative	Negative	Negative	Negative
Positive Control <sup>5</sup>	157 ± 78.0	90 ± 9.5	268 ± 49.2	155 ± 49.4
Positive Control <sup>6</sup>				

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## Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control <sup>1</sup>	15 ± 1.2	27 ± 0.7	25 ± 2.3	36 ± 2.0	15 ± 1.9
0.3				37 ± 2.3	
0.33					26 ± 7.2
1.0		24 ± 0.9		36 ± 1.2	13 ± 2.2
3.3	20 ± 2.8	25 ± 0.9	26 ± 2.6	38 ± 0.6	13 ± 1.2
10.0	20 ± 1.7	16 ± 0.3	26 ± 2.9	32 ± 3.7	14 ± 1.7
33.0	17 ± 2.3	15 ± 1.8	22 ± 3.5	28 ± 1.5	16 ± 0.9
100.0	2 ± 1.0	2 ± 1.2	1 ± 0.7		
333.0	0 ± 0.0		0 ± 0.0		
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>			1140 ± 25.6	558 ± 32.9	2204 ± 306.8
Positive Control <sup>7</sup>	409 ± 33.5	108 ± 9.0			



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**Strain: TA98**

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<b>Dose (ug/Plate)</b>	<b>With 10% Hamster S9</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	36 ± 4.5	40 ± 1.2
0.3		
0.33		
1.0		41 ± 2.6
3.3	32 ± 1.7	34 ± 1.9
10.0	39 ± 4.5	40 ± 1.2
33.0	42 ± 0.9	32 ± 2.7
100.0	8 ± 2.3	38 ± 1.7
333.0	0 ± 0.0	
Trial Summary	Negative	Negative
Positive Control <sup>2</sup>	657 ± 73.4	487 ± 38.7
Positive Control <sup>7</sup>		

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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: Dimethyl Sulfoxide

2: 1.0 ug/Plate 2-Aminoanthracene

3: 1.0 ug/Plate Sodium Azide

4: 3.3 ug/Plate Sodium Azide

5: 2.0 ug/Plate 2-Aminoanthracene

6: 33.0 ug/Plate 9-Aminoacridine

7: 3.3 ug/Plate 4-Nitro-O-Phenylenediamine

**\*\* END OF REPORT \*\***