

Experiment Number: 619780

Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

**G06: Ames Summary Data**

Test Compound: Benzidine, 2,2'-disulfonic acid

CAS Number: 117-61-3

Date Report Requested: 09/15/2018

Time Report Requested: 07:55:35

**NTP Study Number:**

619780

**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 <sup>1</sup>	127 ± 8.3	127 ± 14.7	133 ± 5.2	155 ± 7.7	145 ± 2.4
100.0	149 ± 13.5	149 ± 1.2	162 ± 8.4	150 ± 10.8	157 ± 5.3
333.0	153 ± 3.5	121 ± 18.8	149 ± 0.6	151 ± 9.9	156 ± 6.7
1000.0	125 ± 1.2	137 ± 15.9	136 ± 4.7	150 ± 4.1	151 ± 3.5
3333.0	141 ± 6.8	133 ± 7.2	134 ± 3.5	144 ± 10.8	135 ± 5.0
10000.0	154 ± 2.0	139 ± 7.5	131 ± 9.9	149 ± 6.7	132 ± 5.5
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					400 ± 48.5
Positive Control <sup>3</sup>			288 ± 3.6		
Positive Control <sup>4</sup>				501 ± 36.2	
Positive Control <sup>5</sup>	876 ± 24.0	1009 ± 15.9			

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**Strain: TA100**

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<b>Dose (ug/Plate)</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	167 ± 5.0
100.0	147 ± 11.3
333.0	160 ± 5.9
1000.0	156 ± 4.3
3333.0	141 ± 2.0
10000.0	153 ± 8.3
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	723 ± 5.8
Positive Control <sup>4</sup>	
Positive Control <sup>5</sup>	

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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 ± 1.5	12 ± 2.0	17 ± 1.5	15 ± 1.5	16 ± 3.6
100.0	10 ± 1.9	19 ± 1.5	15 ± 1.2	18 ± 2.8	13 ± 3.1
333.0	12 ± 3.2	13 ± 2.3	13 ± 2.6	17 ± 1.5	12 ± 2.3
1000.0	12 ± 1.9	16 ± 0.6	16 ± 1.5	12 ± 1.5	14 ± 2.8
3333.0	14 ± 0.0	15 ± 1.3	12 ± 3.0	15 ± 1.0	13 ± 2.2
10000.0	10 ± 2.6	12 ± 2.6	13 ± 0.6	14 ± 1.2	10 ± 3.1
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>3</sup>					100 ± 2.1
Positive Control <sup>4</sup>			86 ± 4.6		
Positive Control <sup>5</sup>	949 ± 5.6	941 ± 34.4			
Positive Control <sup>6</sup>				112 ± 16.9	

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**Strain: TA1535**

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<b>Dose (ug/Plate)</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	12 ± 1.8
100.0	15 ± 0.6
333.0	13 ± 3.2
1000.0	9 ± 2.0
3333.0	11 ± 2.4
10000.0	14 ± 1.2
Trial Summary	Negative
Positive Control <sup>3</sup>	
Positive Control <sup>4</sup>	333 ± 10.4
Positive Control <sup>5</sup>	
Positive Control <sup>6</sup>	

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## Strain: TA1538

Dose (ug/Plate)	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	21 ± 3.9	19 ± 3.3	18 ± 1.8	29 ± 0.3
100.0	20 ± 1.9	18 ± 2.0	18 ± 1.8	23 ± 1.3
333.0	14 ± 1.5	16 ± 1.2	18 ± 5.8	22 ± 3.5
1000.0	19 ± 3.4	16 ± 2.6	18 ± 2.0	18 ± 3.0
3333.0	15 ± 1.5	23 ± 3.7	21 ± 3.8	21 ± 3.8
10000.0	13 ± 4.1	22 ± 2.7	22 ± 2.2	13 ± 3.5
Trial Summary	Negative	Negative	Negative	Negative
Positive Control <sup>3</sup>			89 ± 2.9	
Positive Control <sup>4</sup>	86 ± 3.7			
Positive Control <sup>6</sup>				705 ± 16.4
Positive Control <sup>7</sup>		523 ± 17.2		

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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 <sup>1</sup>	139 ± 5.7	122 ± 7.1	153 ± 11.1	159 ± 16.9	147 ± 2.6
100.0	115 ± 3.5	131 ± 10.8	155 ± 16.5	161 ± 5.4	153 ± 11.3
333.0	118 ± 16.5	145 ± 10.7	166 ± 15.7	165 ± 11.3	152 ± 11.3
1000.0	116 ± 2.8	142 ± 6.9	159 ± 7.5	170 ± 12.2	139 ± 15.3
3333.0	121 ± 3.0	140 ± 6.4	148 ± 6.7	170 ± 24.2	148 ± 6.4
10000.0	150 ± 9.0	141 ± 12.8	145 ± 13.7	152 ± 16.3	138 ± 8.4
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					333 ± 16.1
Positive Control <sup>3</sup>			363 ± 17.5		
Positive Control <sup>4</sup>				401 ± 36.4	
Positive Control <sup>8</sup>	328 ± 11.9	300 ± 19.2			

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**Strain: TA97**

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<b>Dose (ug/Plate)</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	125 ± 7.8
100.0	121 ± 1.2
333.0	124 ± 5.5
1000.0	167 ± 19.3
3333.0	150 ± 12.1
10000.0	156 ± 8.0
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	523 ± 51.7
Positive Control <sup>4</sup>	
Positive Control <sup>8</sup>	



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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 <sup>1</sup>	18 ± 0.7	24 ± 2.8	27 ± 0.6	21 ± 3.1	29 ± 0.9
100.0	17 ± 0.9	21 ± 1.9	26 ± 0.7	22 ± 1.7	26 ± 0.9
333.0	15 ± 0.9	19 ± 2.5	23 ± 2.6	22 ± 3.7	22 ± 2.8
1000.0	16 ± 1.2	18 ± 3.5	22 ± 2.3	23 ± 1.2	26 ± 6.7
3333.0	16 ± 0.9	22 ± 3.1	22 ± 2.2	24 ± 0.9	25 ± 2.3
10000.0	17 ± 1.2	19 ± 3.2	18 ± 1.2	18 ± 1.9	24 ± 2.6
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					134 ± 7.5
Positive Control <sup>3</sup>			108 ± 4.5		
Positive Control <sup>9</sup>	349 ± 5.1	313 ± 15.3			
Positive Control <sup>4</sup>				163 ± 4.9	

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**Strain: TA98**

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<b>Dose (ug/Plate)</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	21 ± 0.3
100.0	26 ± 1.5
333.0	26 ± 1.8
1000.0	21 ± 3.5
3333.0	23 ± 0.3
10000.0	23 ± 4.7
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	232 ± 27.8
Positive Control <sup>9</sup>	
Positive Control <sup>4</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: 0.5 ug/Plate 2-Aminoanthracene
- 3: 1.0 ug/Plate 2-Aminoanthracene
- 4: 2.5 ug/Plate 2-Aminoanthracene
- 5: 5.0 ug/Plate Sodium Azide
- 6: 5.0 ug/Plate 2-Aminoanthracene
- 7: 10.0 ug/Plate 2-Aminoanthracene
- 8: 50.0 ug/Plate 9-Aminoacridine
- 9: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine

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