

Experiment Number: 036977

Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

**G06: Ames Summary Data**

Test Compound: 2,2'-Dithiobis-benzothiazole

CAS Number: 120-78-5

Date Report Requested: 09/14/2018

Time Report Requested: 19:41:45

**NTP Study Number:**

036977

**Study Result:**

Positive

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Time Report Requested: 19:41:45

CAS Number: 120-78-5

**Strain: TA100**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>	<b>Without S9</b>	<b>With 10% Rat S9</b>	<b>With 10% Rat S9</b>
Vehicle Control <sup>1</sup>	117 ± 4.5	136 ± 13.8	99 ± 1.8	92 ± 4.1	122 ± 9.9
100.0	131 ± 6.4	162 ± 13.4	112 ± 10.4	96 ± 1.2	145 ± 2.0
333.0	137 ± 4.7	153 ± 3.0	118 ± 8.7	132 ± 8.4	172 ± 5.8
1000.0	150 ± 1.7 <sup>P</sup>	171 ± 18.5	124 ± 4.9 <sup>P</sup>	154 ± 3.2 <sup>P</sup>	196 ± 10.2
3333.0	179 ± 10.3	161 ± 17.4	131 ± 11.0	164 ± 7.2	205 ± 12.9
10000.0	253 ± 4.6	192 ± 3.5	161 ± 3.7	212 ± 8.0	228 ± 9.8
Trial Summary	Weakly Positive	Equivocal	Equivocal	Positive	Weakly Positive
Positive Control <sup>2</sup>					
Positive Control <sup>3</sup>				1478 ± 7.6	1402 ± 61.3
Positive Control <sup>4</sup>	1348 ± 24.8	2067 ± 126.8	1143 ± 19.6		

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## Strain: TA100

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	120 ± 8.7	92 ± 9.5	120 ± 6.3	103 ± 5.5
100.0	132 ± 3.2	130 ± 7.1	137 ± 6.7	117 ± 9.1
333.0	133 ± 9.3	145 ± 6.9	135 ± 5.9	125 ± 3.2
1000.0	177 ± 11.6 <sup>P</sup>	165 ± 7.9 <sup>P</sup>	140 ± 8.6	129 ± 9.3 <sup>P</sup>
3333.0	189 ± 11.2	216 ± 11.3	201 ± 2.4	164 ± 12.7
10000.0	250 ± 11.4	271 ± 1.2	224 ± 13.0	202 ± 3.8
Trial Summary	Weakly Positive	Positive	Weakly Positive	Weakly Positive
Positive Control <sup>2</sup>		2183 ± 59.1	1106 ± 24.7	807 ± 13.9
Positive Control <sup>3</sup>	1023 ± 28.8			
Positive Control <sup>4</sup>				

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CAS Number: 120-78-5

**Strain: TA1535**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>	<b>Without S9</b>	<b>With 10% Rat S9</b>	<b>With 10% Rat S9</b>
Vehicle Control <sup>1</sup>	35 ± 5.0	48 ± 3.8	22 ± 2.6	12 ± 2.3	27 ± 4.2
100.0	29 ± 2.3	48 ± 2.0	18 ± 1.0	9 ± 2.1	27 ± 2.6
333.0	31 ± 5.2	49 ± 3.1	18 ± 2.7	11 ± 1.3	26 ± 1.3
1000.0	34 ± 3.9 <sup>P</sup>	45 ± 2.2	23 ± 1.0 <sup>P</sup>	7 ± 1.0 <sup>P</sup>	24 ± 3.2
3333.0	31 ± 1.5	45 ± 3.5	21 ± 1.9	10 ± 2.0	26 ± 4.8
10000.0	21 ± 3.4	37 ± 2.6	18 ± 2.9	13 ± 2.3	18 ± 3.2
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					
Positive Control <sup>3</sup>				128 ± 4.1	145 ± 1.5
Positive Control <sup>4</sup>	1022 ± 18.8	1319 ± 41.5	919 ± 5.2		

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Date Report Requested: 09/14/2018

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## Strain: TA1535

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	18 ± 2.6	10 ± 2.2	27 ± 1.5	13 ± 1.2
100.0	14 ± 3.3	11 ± 2.2	24 ± 1.5	10 ± 3.0
333.0	13 ± 1.7	18 ± 3.5	28 ± 3.5	10 ± 3.9
1000.0	7 ± 0.9 <sup>P</sup>	18 ± 2.6 <sup>P</sup>	25 ± 1.5	14 ± 2.9 <sup>P</sup>
3333.0	10 ± 0.3	28 ± 0.9	29 ± 5.5	10 ± 1.3
10000.0	12 ± 1.3	29 ± 1.2	25 ± 1.3	11 ± 1.5
Trial Summary	Negative	Weakly Positive	Negative	Negative
Positive Control <sup>2</sup>		192 ± 4.6	156 ± 10.8	83 ± 1.2
Positive Control <sup>3</sup>	102 ± 3.8			
Positive Control <sup>4</sup>				

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## Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control <sup>1</sup>	109 ± 8.5	66 ± 3.5	105 ± 7.4	128 ± 9.3	115 ± 4.0
100.0	126 ± 0.7	110 ± 4.3	116 ± 4.5	123 ± 3.0	123 ± 3.3
333.0	141 ± 8.3	126 ± 9.5	105 ± 8.7	137 ± 2.5	136 ± 4.9
1000.0	186 ± 14.0 <sup>P</sup>	116 ± 8.7	153 ± 6.2 <sup>P</sup>	141 ± 6.4	128 ± 5.8 <sup>P</sup>
3333.0	246 ± 17.4	159 ± 9.5 <sup>P</sup>	149 ± 4.6	139 ± 7.5	150 ± 6.9
10000.0	348 ± 17.7	251 ± 11.3 <sup>P</sup>	180 ± 11.8	180 ± 16.0	182 ± 4.5
Trial Summary	Positive	Positive	Weakly Positive	Equivocal	Equivocal
Positive Control <sup>2</sup>					
Positive Control <sup>3</sup>			1082 ± 48.8	Toxic	518 ± 11.9
Positive Control <sup>5</sup>	384 ± 16.9	423 ± 13.0			

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**Strain: TA97**

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<b>Dose (ug/Plate)</b>	<b>With 10% Hamster S9</b>	<b>With 10% Hamster S9</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	125 ± 12.0	120 ± 8.8	106 ± 6.2
100.0	129 ± 2.3	130 ± 6.9	109 ± 7.0
333.0	138 ± 5.2	126 ± 9.3	121 ± 6.2
1000.0	158 ± 6.7 <sup>P</sup>	124 ± 11.3	121 ± 3.8 <sup>P</sup>
3333.0	215 ± 3.2	150 ± 4.0	149 ± 7.2
10000.0	364 ± 13.3	250 ± 20.3	192 ± 9.5
Trial Summary	Positive	Equivocal	Weakly Positive
Positive Control <sup>2</sup>	1376 ± 12.8	940 ± 20.5	421 ± 10.3
Positive Control <sup>3</sup>			
Positive Control <sup>5</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>	14 ± 0.9	15 ± 1.5	39 ± 1.5	33 ± 6.6	26 ± 1.5
100.0	21 ± 1.5	19 ± 2.6	38 ± 3.5	44 ± 2.0	30 ± 5.6
333.0	20 ± 3.5	24 ± 1.8	39 ± 2.6	37 ± 4.0	35 ± 2.8
1000.0	22 ± 0.9 <sup>p</sup>	23 ± 0.9 <sup>p</sup>	32 ± 4.0 <sup>p</sup>	39 ± 2.9	39 ± 4.3 <sup>p</sup>
3333.0	31 ± 3.3	37 ± 2.9	44 ± 2.3	30 ± 4.2	37 ± 1.7
10000.0	59 ± 5.4	56 ± 4.7	51 ± 3.6	44 ± 2.0	45 ± 6.2
Trial Summary	Positive	Positive	Negative	Negative	Negative
Positive Control <sup>2</sup>					
Positive Control <sup>3</sup>			1442 ± 12.4	Toxic	1388 ± 36.4
Positive Control <sup>6</sup>	1488 ± 48.9	1607 ± 28.8			



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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>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	28 ± 1.2	34 ± 2.2	26 ± 2.1
100.0	46 ± 2.2	41 ± 1.7	29 ± 2.5
333.0	45 ± 0.3	37 ± 4.7	34 ± 2.0
1000.0	54 ± 4.9 <sup>P</sup>	42 ± 1.3	38 ± 2.9 <sup>P</sup>
3333.0	59 ± 7.9	48 ± 0.6	47 ± 4.5
10000.0	71 ± 5.2	55 ± 2.7	45 ± 1.8
Trial Summary	Positive	Equivocal	Equivocal
Positive Control <sup>2</sup>	1985 ± 46.0	1656 ± 233.5	1008 ± 32.9
Positive Control <sup>3</sup>			
Positive Control <sup>6</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: 0.75 ug/Plate 2-Aminoanthracene

3: 1.5 ug/Plate 2-Aminoanthracene

4: 2.5 ug/Plate Sodium Azide

5: 4.0 ug/Plate 9-Aminoacridine

6: 12.0 ug/Plate 4-Nitro-O-Phenylenediamine

p: Precipitate

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