

Experiment Number: 173117

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

**G06: Ames Summary Data**

Test Compound: **Styrene**

CAS Number: **100-42-5**

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

Time Report Requested: **14:00:44**

**NTP Study Number:**

173117

**Study Result:**

Negative

Experiment Number: 173117

Test Type: **Genetic Toxicology - Bacterial  
Mutagenicity****G06: Ames Summary Data**Test Compound: **Styrene**CAS Number: **100-42-5**Date Report Requested: **09/13/2018**Time Report Requested: **14:00:44****Strain: TA100**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>	<b>With 10% Rat S9</b>	<b>With 30% Rat S9</b>	<b>With 5% Hamster S9</b>
Vehicle Control <sup>1</sup>	164 ± 6.4	158 ± 10.3	161 ± 5.7	157 ± 11.1	145 ± 3.7
3.0	164 ± 5.7	152 ± 11.9			
10.0	158 ± 3.8	159 ± 6.4	166 ± 0.9		146 ± 8.3
33.0	161 ± 13.4	143 ± 7.0	148 ± 9.6	179 ± 10.3	156 ± 10.8
100.0	152 ± 8.0	140 ± 4.0	136 ± 2.4	184 ± 5.8	149 ± 5.9
166.0		111 ± 9.5			
333.0	91 ± 3.6		130 ± 11.6	155 ± 8.1	132 ± 11.1
1000.0			76 ± 12.1 <sup>s</sup>	126 ± 2.2	96 ± 6.9 <sup>s</sup>
1666.0				107 ± 3.5	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					921 ± 21.9
Positive Control <sup>3</sup>			582 ± 43.0		
Positive Control <sup>4</sup>	398 ± 5.9	467 ± 16.4			
Positive Control <sup>5</sup>				442 ± 15.4	

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Mutagenicity****G06: Ames Summary Data**Test Compound: **Styrene**CAS Number: **100-42-5**Date Report Requested: **09/13/2018**Time Report Requested: **14:00:44****Strain: TA100**

<b>Dose (ug/Plate)</b>	<b>With 10% Hamster S9</b>	<b>With 10% Hamster S9</b>	<b>With 30% Hamster S9</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	127 ± 0.9	143 ± 5.2	148 ± 8.5	165 ± 15.3
3.0				
10.0	151 ± 6.7	156 ± 1.5		145 ± 5.5
33.0	160 ± 4.0	153 ± 3.8	164 ± 8.9	150 ± 13.9
100.0	154 ± 13.8	150 ± 8.1	188 ± 10.3	149 ± 10.3
166.0				
333.0	135 ± 13.5	142 ± 11.6	135 ± 13.9	143 ± 9.7
1000.0	79 ± 5.3 <sup>s</sup>	99 ± 8.1 <sup>s</sup>	118 ± 23.1	134 ± 8.0
1666.0			108 ± 6.3 <sup>s</sup>	
Trial Summary	Equivocal	Negative	Equivocal	Negative
Positive Control <sup>2</sup>	780 ± 38.3	822 ± 42.7		
Positive Control <sup>3</sup>			595 ± 4.0	601 ± 20.6
Positive Control <sup>4</sup>				
Positive Control <sup>5</sup>				

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Mutagenicity****G06: Ames Summary Data**Test Compound: **Styrene**CAS Number: **100-42-5**Date Report Requested: **09/13/2018**Time Report Requested: **14:00:44****Strain: TA1535**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>	<b>With 10% Rat S9</b>	<b>With 30% Rat S9</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	14 ± 2.4	28 ± 0.3	10 ± 2.4	13 ± 0.0	12 ± 1.2
3.0	19 ± 3.2	24 ± 2.7			
10.0	12 ± 0.7	21 ± 1.8	16 ± 1.2		13 ± 2.0
33.0	11 ± 0.6	22 ± 1.9	8 ± 0.6	13 ± 0.9	10 ± 2.3
100.0	13 ± 0.3	26 ± 3.5	11 ± 0.7	12 ± 1.5	9 ± 2.3
333.0	11 ± 1.5	12 ± 2.4 <sup>s</sup>	6 ± 3.1	6 ± 0.9	6 ± 0.3
666.0					6 ± 2.7
1000.0			7 ± 0.9 <sup>s</sup>	5 ± 1.0 <sup>s</sup>	
1666.0				5 ± 2.4 <sup>s</sup>	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>3</sup>					212 ± 42.6
Positive Control <sup>4</sup>	121 ± 2.2	476 ± 59.9			
Positive Control <sup>5</sup>			147 ± 10.7		
Positive Control <sup>6</sup>				61 ± 2.3	

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

**G06: Ames Summary Data**

Test Compound: **Styrene**

CAS Number: **100-42-5**

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

Time Report Requested: **14:00:44**

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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>	11 ± 1.5
3.0	
10.0	
33.0	13 ± 1.2
100.0	9 ± 0.6
333.0	10 ± 0.9
666.0	
1000.0	4 ± 0.6 <sup>s</sup>
1666.0	3 ± 0.9 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>3</sup>	
Positive Control <sup>4</sup>	
Positive Control <sup>5</sup>	206 ± 31.0
Positive Control <sup>6</sup>	

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**G06: Ames Summary Data**

Test Compound: **Styrene**

CAS Number: **100-42-5**

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

Time Report Requested: **14:00:44**

**Strain: TA1537**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>With 30% Rat S9</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	8 ± 0.9	11 ± 0.9	11 ± 1.8
3.0	3 ± 0.7		
10.0	3 ± 0.3		
33.0	3 ± 1.2	9 ± 2.1	6 ± 0.9
100.0	7 ± 1.2	9 ± 1.2	10 ± 1.2
333.0	5 ± 1.5	7 ± 0.9	3 ± 2.0
1000.0		5 ± 2.3	3 ± 1.7 <sup>s</sup>
1666.0		2 ± 1.5 <sup>s</sup>	3 ± 1.5 <sup>s</sup>
Trial Summary	Negative	Negative	Negative
Positive Control <sup>3</sup>			42 ± 1.8
Positive Control <sup>5</sup>		32 ± 3.2	
Positive Control <sup>7</sup>	577 ± 67.9		

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Test Type: **Genetic Toxicology - Bacterial  
Mutagenicity****G06: Ames Summary Data**Test Compound: **Styrene**CAS Number: **100-42-5**Date Report Requested: **09/13/2018**Time Report Requested: **14:00:44****Strain: TA97**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>	<b>With 10% Rat S9</b>	<b>With 30% Rat S9</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	127 ± 10.7	187 ± 8.6	203 ± 6.2	160 ± 18.0	185 ± 1.2
3.0	132 ± 2.2	168 ± 10.1			
10.0	165 ± 3.8	179 ± 2.1	212 ± 0.3		178 ± 11.9
33.0	149 ± 11.7	192 ± 12.7	208 ± 7.5	155 ± 11.8	201 ± 7.2
100.0	149 ± 5.2	176 ± 4.8	205 ± 2.5	146 ± 9.5	194 ± 11.7
333.0	138 ± 4.5	131 ± 10.5	178 ± 5.4	188 ± 9.0	168 ± 3.8
666.0					154 ± 6.2
1000.0			144 ± 16.9 <sup>s</sup>	162 ± 11.2	
1666.0				154 ± 13.3 <sup>s</sup>	
Trial Summary	Equivocal	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					603 ± 108.0
Positive Control <sup>3</sup>			410 ± 10.0		
Positive Control <sup>5</sup>				429 ± 24.6	
Positive Control <sup>7</sup>	557 ± 76.6	664 ± 73.3			

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**G06: Ames Summary Data**  
Test Compound: **Styrene**  
CAS Number: **100-42-5**

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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>	189 ± 5.7
3.0	
10.0	
33.0	178 ± 14.7
100.0	210 ± 1.5
333.0	199 ± 12.1
666.0	
1000.0	100 ± 15.6 <sup>s</sup>
1666.0	110 ± 11.0 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	457 ± 5.6
Positive Control <sup>5</sup>	
Positive Control <sup>7</sup>	



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Mutagenicity****G06: Ames Summary Data**Test Compound: **Styrene**CAS Number: **100-42-5**Date Report Requested: **09/13/2018**Time Report Requested: **14:00:44****Strain: TA98**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>	<b>With 10% Rat S9</b>	<b>With 30% Rat S9</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	29 ± 2.9	21 ± 2.4	28 ± 4.6	48 ± 1.5	34 ± 4.3
3.0	25 ± 0.3	21 ± 6.4			
10.0	23 ± 1.3	14 ± 2.2	28 ± 0.3		20 ± 5.0
33.0	21 ± 4.2	15 ± 2.2	26 ± 2.9	41 ± 2.3	26 ± 0.7
100.0	18 ± 1.2	16 ± 3.2	22 ± 2.3	37 ± 1.5	38 ± 3.2
166.0		14 ± 1.8			
333.0	10 ± 2.7 <sup>s</sup>		20 ± 2.6	30 ± 2.6	28 ± 3.7
1000.0			16 ± 0.6 <sup>s</sup>	22 ± 1.5	29 ± 4.7 <sup>s</sup>
1666.0				15 ± 2.9 <sup>s</sup>	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>					669 ± 37.9
Positive Control <sup>3</sup>			367 ± 16.9	134 ± 10.2	
Positive Control <sup>8</sup>	716 ± 34.1	532 ± 17.0			

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**G06: Ames Summary Data**

Test Compound: **Styrene**

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Time Report Requested: **14:00:44**

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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>	33 ± 1.5
3.0	
10.0	
33.0	25 ± 2.5
100.0	28 ± 3.3
166.0	
333.0	24 ± 0.6
1000.0	22 ± 2.3
1666.0	8 ± 4.3 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	414 ± 38.9
Positive Control <sup>8</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: 1.0 ug/Plate Sodium Azide

5: 2.5 ug/Plate 2-Aminoanthracene

6: 5.0 ug/Plate 2-Aminoanthracene

7: 50.0 ug/Plate 9-Aminoacridine

8: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

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