

Experiment Number: 317253

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

**G06: Ames Summary Data**

Test Compound: **Benzoic acid**

CAS Number: **65-85-0**

Date Report Requested: **09/12/2018**

Time Report Requested: **09:32:08**

**NTP Study Number:**

317253

**Study Result:**

Negative

Experiment Number: 317253

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Mutagenicity

## G06: Ames Summary Data

Test Compound: Benzoic acid

CAS Number: 65-85-0

Date Report Requested: 09/12/2018

Time Report Requested: 09:32:08

## 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>	93 ± 4.2	78 ± 8.7	80 ± 3.4	97 ± 8.2	87 ± 1.7
33.0		65 ± 7.1			
100.0	78 ± 2.7	57 ± 2.9	89 ± 6.4	107 ± 0.0	72 ± 1.0
333.0	78 ± 1.9	53 ± 3.2	80 ± 2.3	98 ± 5.8	72 ± 6.1
1000.0	74 ± 3.5	65 ± 2.2	80 ± 6.5	90 ± 1.7	70 ± 9.2
3333.0	62 ± 8.1	42 ± 3.1	63 ± 7.0	69 ± 6.2	60 ± 5.2
5000.0			38 ± 3.4 <sup>s</sup>		14 ± 13.7 <sup>s</sup>
10000.0	0 ± 0.0 <sup>s</sup>			0 ± 0.0 <sup>s</sup>	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>	224 ± 3.8	177 ± 3.2			
Positive Control <sup>3</sup>			301 ± 17.3		
Positive Control <sup>4</sup>					168 ± 4.3
Positive Control <sup>5</sup>				219 ± 12.7	

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Strain: TA100

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Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control <sup>1</sup>	99 ± 4.1
33.0	
100.0	108 ± 3.7
333.0	99 ± 8.4
1000.0	89 ± 0.7
3333.0	84 ± 6.2
5000.0	
10000.0	0 ± 0.0 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>2</sup>	
Positive Control <sup>3</sup>	
Positive Control <sup>4</sup>	330 ± 3.4
Positive Control <sup>5</sup>	

Experiment Number: 317253

Test Type: **Genetic Toxicology - Bacterial Mutagenicity****G06: Ames Summary Data**Test Compound: **Benzoic acid**CAS Number: **65-85-0**Date Report Requested: **09/12/2018**Time Report Requested: **09:32:08****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>	17 ± 2.8	6 ± 1.3	8 ± 1.5	9 ± 1.5	7 ± 1.5
100.0	19 ± 2.3	11 ± 3.2	5 ± 2.3	11 ± 2.6	7 ± 1.2
333.0	16 ± 2.7	11 ± 2.7	6 ± 1.0	8 ± 0.6	7 ± 0.9
1000.0	13 ± 0.7	9 ± 0.7	7 ± 2.3	11 ± 3.5	5 ± 0.7
3333.0	15 ± 2.5	8 ± 1.5	5 ± 1.0	6 ± 2.0	3 ± 0.9
5000.0		0 ± 0.3 <sup>s</sup>	4 ± 2.1 <sup>s</sup>		3 ± 1.5 <sup>s</sup>
6666.0	0 ± 0.0 <sup>s</sup>			0 ± 0.0 <sup>s</sup>	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>6</sup>					15 ± 5.2
Positive Control <sup>2</sup>	173 ± 6.8	127 ± 4.1			
Positive Control <sup>4</sup>					
Positive Control <sup>5</sup>			83 ± 7.0	57 ± 3.5	

Experiment Number: 317253

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

**G06: Ames Summary Data**

Test Compound: **Benzoic acid**

CAS Number: **65-85-0**

Date Report Requested: **09/12/2018**

Time Report Requested: **09:32:08**

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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>	6 ± 0.9
100.0	5 ± 1.3
333.0	8 ± 2.4
1000.0	7 ± 0.3
3333.0	7 ± 1.9
5000.0	
6666.0	6 ± 0.7 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>6</sup>	
Positive Control <sup>2</sup>	
Positive Control <sup>4</sup>	51 ± 4.9
Positive Control <sup>5</sup>	

Experiment Number: 317253

Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

## G06: Ames Summary Data

Test Compound: Benzoic acid

CAS Number: 65-85-0

Date Report Requested: 09/12/2018

Time Report Requested: 09:32:08

## Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	4 ± 0.9	5 ± 1.2	6 ± 2.5	7 ± 1.3	3 ± 0.9
100.0	6 ± 0.9	4 ± 0.7	7 ± 0.3	6 ± 1.2	5 ± 1.3
333.0	4 ± 0.6	3 ± 1.2	7 ± 1.5	10 ± 1.7	4 ± 0.6
1000.0	3 ± 0.7	5 ± 1.2	3 ± 0.7	7 ± 1.5	5 ± 1.2
3333.0	4 ± 0.9	6 ± 2.4	6 ± 1.7	6 ± 1.2	3 ± 1.9
5000.0		2 ± 2.0 <sup>s</sup>	1 ± 0.6 <sup>s</sup>		2 ± 0.6 <sup>s</sup>
6666.0	0 ± 0.0 <sup>s</sup>			2 ± 0.9 <sup>s</sup>	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>3</sup>					112 ± 16.4
Positive Control <sup>5</sup>			94 ± 2.5		
Positive Control <sup>7</sup>				19 ± 1.8	
Positive Control <sup>8</sup>	78 ± 7.2	80 ± 5.7			

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Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Benzoic acid  
CAS Number: 65-85-0

Date Report Requested: 09/12/2018  
Time Report Requested: 09:32:08

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Strain: TA1537

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Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control <sup>1</sup>	5 ± 0.6
100.0	6 ± 2.4
333.0	5 ± 2.1
1000.0	4 ± 0.9
3333.0	6 ± 2.0
5000.0	
6666.0	5 ± 0.6 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>3</sup>	
Positive Control <sup>5</sup>	
Positive Control <sup>7</sup>	90 ± 5.8
Positive Control <sup>8</sup>	

Experiment Number: 317253

Test Type: **Genetic Toxicology - Bacterial Mutagenicity****G06: Ames Summary Data**Test Compound: **Benzoic acid**CAS Number: **65-85-0**Date Report Requested: **09/12/2018**Time Report Requested: **09:32:08****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>	88 ± 3.0	89 ± 3.0	107 ± 3.6	116 ± 7.5	106 ± 7.6
100.0	75 ± 2.9	51 ± 3.7	105 ± 2.3	106 ± 9.4	109 ± 7.0
333.0	57 ± 6.2	42 ± 5.3	102 ± 6.0	116 ± 16.4	98 ± 1.9
1000.0	59 ± 5.5	47 ± 4.6	102 ± 1.5	121 ± 5.4	91 ± 1.8
3333.0	33 ± 1.9	15 ± 4.7	89 ± 3.5	112 ± 0.9	92 ± 3.5
5000.0		0 ± 0.0 <sup>s</sup>	35 ± 25.3 <sup>s</sup>		78 ± 1.9 <sup>s</sup>
6666.0	0 ± 0.3 <sup>s</sup>			24 ± 14.1 <sup>s</sup>	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>3</sup>					880 ± 59.4
Positive Control <sup>5</sup>			539 ± 34.4		
Positive Control <sup>7</sup>				241 ± 37.0	
Positive Control <sup>9</sup>	461 ± 55.6	303 ± 55.1			

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

**G06: Ames Summary Data**

Test Compound: **Benzoic acid**

CAS Number: **65-85-0**

Date Report Requested: **09/12/2018**

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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>	112 ± 13.7
100.0	85 ± 1.5
333.0	94 ± 1.5
1000.0	100 ± 3.8
3333.0	90 ± 2.5
5000.0	
6666.0	0 ± 0.0 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>3</sup>	
Positive Control <sup>5</sup>	
Positive Control <sup>7</sup>	622 ± 18.8
Positive Control <sup>9</sup>	

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Mutagenicity

## G06: Ames Summary Data

Test Compound: Benzoic acid

CAS Number: 65-85-0

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Time Report Requested: 09:32:08

## 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>	10 ± 2.5	12 ± 1.2	29 ± 2.3	21 ± 4.4	22 ± 0.3
33.0			25 ± 4.8		
100.0	12 ± 2.6	11 ± 0.7	22 ± 1.5	15 ± 1.9	26 ± 1.5
333.0	11 ± 2.4	9 ± 1.8	23 ± 0.9	15 ± 0.9	21 ± 0.9
1000.0	10 ± 0.3	15 ± 1.0	18 ± 0.9	17 ± 0.9	23 ± 1.7
3333.0	6 ± 0.6	11 ± 1.8	16 ± 1.3	19 ± 2.4	18 ± 0.3
5000.0		2 ± 0.6 <sup>s</sup>			8 ± 3.5 <sup>s</sup>
10000.0	0 ± 0.0 <sup>s</sup>			0 ± 0.0 <sup>s</sup>	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>10</sup>					105 ± 16.2
Positive Control <sup>6</sup>			146 ± 27.5		
Positive Control <sup>4</sup>				83 ± 8.5	
Positive Control <sup>11</sup>	128 ± 6.9	170 ± 14.2			

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Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

G06: Ames Summary Data  
Test Compound: Benzoic acid  
CAS Number: 65-85-0

Date Report Requested: 09/12/2018  
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Strain: TA98

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Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control <sup>1</sup>	24 ± 1.8
33.0	
100.0	26 ± 2.3
333.0	28 ± 7.1
1000.0	22 ± 2.0
3333.0	17 ± 0.6
5000.0	
10000.0	0 ± 0.0 <sup>s</sup>
Trial Summary	Negative
Positive Control <sup>10</sup>	
Positive Control <sup>6</sup>	69 ± 6.4
Positive Control <sup>4</sup>	
Positive Control <sup>11</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 Sodium Azide

3: 0.75 ug/Plate 2-Aminoanthracene

4: 1.0 ug/Plate 2-Aminoanthracene

5: 2.0 ug/Plate 2-Aminoanthracene

6: 0.4 ug/Plate 2-Aminoanthracene

7: 2.5 ug/Plate 2-Aminoanthracene

8: 4.0 ug/Plate 9-Aminoacridine

9: 8.0 ug/Plate 9-Aminoacridine

10: 0.2 ug/Plate 2-Aminoanthracene

11: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

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