

Experiment Number: 565323

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

**G06: Ames Summary Data**

Test Compound: **Phenylacetonitrile**

CAS Number: **140-29-4**

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

Time Report Requested: **23:05:33**

**NTP Study Number:**

565323

**Study Result:**

Negative

Experiment Number: 565323

Test Type: Genetic Toxicology - Bacterial  
Mutagenicity

## G06: Ames Summary Data

Test Compound: Phenylacetoneitrile

CAS Number: 140-29-4

Date Report Requested: 09/13/2018

Time Report Requested: 23:05:33

## 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>	128 ± 6.0	119 ± 2.3	114 ± 3.5	132 ± 8.3	135 ± 3.2
3.0					
10.0		108 ± 9.3			132 ± 7.3
33.0	125 ± 6.9	93 ± 31.2	118 ± 11.4	118 ± 14.1	118 ± 4.6
100.0	114 ± 9.3	101 ± 4.6	117 ± 4.6	123 ± 13.7	140 ± 5.0
333.0	113 ± 1.0	107 ± 8.0	122 ± 18.2	112 ± 6.2	67 ± 9.8
666.0					0 ± 0.0 <sup>s</sup>
1000.0	107 ± 4.7	101 ± 12.0	105 ± 18.9	94 ± 11.9	
1666.0	16 ± 8.6 <sup>s</sup>		95 ± 4.5 <sup>p</sup>	23 ± 3.0 <sup>p</sup>	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>			629 ± 18.2	613 ± 34.7	1393 ± 4.9
Positive Control <sup>3</sup>	334 ± 24.3	619 ± 55.2			

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

**G06: Ames Summary Data**

Test Compound: **Phenylacetonitrile**

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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>	106 ± 2.9
3.0	109 ± 2.7
10.0	113 ± 2.0
33.0	110 ± 4.0
100.0	101 ± 10.7
333.0	42 ± 6.5
666.0	
1000.0	
1666.0	
Trial Summary	Negative
Positive Control <sup>2</sup>	557 ± 34.4
Positive Control <sup>3</sup>	

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Test Type: Genetic Toxicology - Bacterial  
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## G06: Ames Summary Data

Test Compound: Phenylacetoneitrile

CAS Number: 140-29-4

Date Report Requested: 09/13/2018

Time Report Requested: 23:05:33

## 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>	32 ± 0.9	31 ± 2.9	11 ± 0.6	14 ± 1.2	10 ± 1.8
3.0					
10.0		27 ± 3.4			11 ± 1.8
33.0	34 ± 2.7	27 ± 1.5	11 ± 1.9	13 ± 2.1	8 ± 1.5
100.0	25 ± 0.9	29 ± 3.2	12 ± 1.2	10 ± 0.7	12 ± 1.2
333.0	34 ± 4.5	34 ± 1.5	11 ± 1.9	12 ± 0.3	8 ± 0.7
666.0					Toxic
1000.0	41 ± 2.4	27 ± 1.2	10 ± 3.9	14 ± 2.6	
1666.0	32 ± 1.8 <sup>p</sup>		11 ± 1.5 <sup>p</sup>	13 ± 2.3 <sup>p</sup>	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>3</sup>	347 ± 8.3	526 ± 10.2			
Positive Control <sup>4</sup>			167 ± 2.9	199 ± 11.6	339 ± 23.0

Experiment Number: 565323

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

**G06: Ames Summary Data**

Test Compound: **Phenylacetonitrile**

CAS Number: **140-29-4**

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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>	17 ± 2.3
3.0	16 ± 5.0
10.0	15 ± 1.8
33.0	17 ± 3.7
100.0	16 ± 1.5
333.0	9 ± 1.5
666.0	
1000.0	
1666.0	
Trial Summary	Negative
Positive Control <sup>3</sup>	
Positive Control <sup>4</sup>	444 ± 37.7

Experiment Number: 565323

Test Type: Genetic Toxicology - Bacterial Mutagenicity

**G06: Ames Summary Data**

Test Compound: Phenylacetoneitrile

CAS Number: 140-29-4

Date Report Requested: 09/13/2018

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**Strain: TA1537**

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<b>Dose (ug/Plate)</b>	<b>With 10% Rat S9</b>	<b>With 10% Hamster S9</b>
Vehicle Control <sup>1</sup>	9 ± 1.0	6 ± 1.2
3.0		9 ± 1.9
10.0	10 ± 2.3	6 ± 1.3
33.0	11 ± 3.0	5 ± 2.3
100.0	5 ± 1.0	7 ± 1.2
166.0		6 ± 1.8
333.0	6 ± 1.5	
1000.0	7 ± 0.3	
Trial Summary	Negative	Negative
Positive Control <sup>4</sup>	70 ± 3.8	175 ± 4.9

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## G06: Ames Summary Data

Test Compound: Phenylacetoneitrile  
CAS Number: 140-29-4

Date Report Requested: 09/13/2018

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## Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control <sup>1</sup>	161 ± 2.2	129 ± 13.3	186 ± 4.7	160 ± 4.9	179 ± 8.8
3.0					
10.0		121 ± 9.1		175 ± 7.0	
33.0	170 ± 7.8	125 ± 5.5	223 ± 10.5	167 ± 10.2	163 ± 8.6
100.0	152 ± 10.5	121 ± 2.6	247 ± 11.9	178 ± 5.4	152 ± 4.4
166.0					
333.0	165 ± 3.2	131 ± 2.5	265 ± 20.3	161 ± 13.6	164 ± 6.4
666.0					
1000.0	155 ± 7.1	118 ± 7.5	292 ± 20.1	129 ± 18.5	161 ± 10.3
1666.0	83 ± 17.0 <sup>s</sup>		260 ± 17.2 <sup>p</sup>		159 ± 1.5 <sup>p</sup>
Trial Summary	Negative	Negative	Weakly Positive	Negative	Negative
Positive Control <sup>4</sup>			1124 ± 38.4	1220 ± 25.3	530 ± 24.3
Positive Control <sup>5</sup>	416 ± 27.5	689 ± 121.1			

Experiment Number: 565323

Test Type: Genetic Toxicology - Bacterial  
Mutagenicity**G06: Ames Summary Data**

Test Compound: Phenylacetoneitrile

CAS Number: 140-29-4

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**Strain: TA97**

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	175 ± 8.4	151 ± 6.8	153 ± 10.9
3.0		153 ± 11.1	160 ± 6.1
10.0	226 ± 10.2	170 ± 10.2	174 ± 8.3
33.0	237 ± 14.0	156 ± 8.7	149 ± 21.4
100.0	325 ± 8.3	150 ± 2.0	121 ± 14.8
166.0		152 ± 14.3	
333.0	163 ± 9.5		27 ± 10.7
666.0	0 ± 0.0 <sup>s</sup>		
1000.0			
1666.0			
Trial Summary	Positive	Negative	Negative
Positive Control <sup>4</sup>	1360 ± 50.4	1431 ± 52.7	959 ± 33.2
Positive Control <sup>5</sup>			



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## G06: Ames Summary Data

Test Compound: Phenylacetoneitrile

CAS Number: 140-29-4

Date Report Requested: 09/13/2018

Time Report Requested: 23:05:33

## 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 ± 1.5	27 ± 1.5	27 ± 0.7	132 ± 8.3	39 ± 2.1
3.0					
10.0		25 ± 1.9			31 ± 1.0
33.0	17 ± 2.0	36 ± 6.4	30 ± 5.5	118 ± 14.1	28 ± 1.0
100.0	21 ± 3.2	36 ± 2.6	28 ± 4.7	123 ± 13.7	23 ± 2.3
333.0	15 ± 1.5	32 ± 3.5	30 ± 2.8	112 ± 6.2	0 ± 0.0 <sup>s</sup>
666.0					0 ± 0.0 <sup>s</sup>
1000.0	21 ± 0.6	28 ± 6.1	32 ± 1.9	94 ± 11.9	
1666.0	0 ± 0.0 <sup>s</sup>		25 ± 1.0 <sup>p</sup>	23 ± 3.0 <sup>p</sup>	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control <sup>2</sup>			282 ± 22.5	613 ± 34.7	615 ± 37.9
Positive Control <sup>6</sup>	605 ± 35.2	1015 ± 28.6			

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Test Compound: **Phenylacetonitrile**

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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>	32 ± 2.3
3.0	31 ± 1.9
10.0	33 ± 1.7
33.0	31 ± 6.7
100.0	18 ± 6.8
333.0	4 ± 0.6
666.0	
1000.0	
1666.0	
Trial Summary	Negative
Positive Control <sup>2</sup>	506 ± 25.7
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: 1.0 ug/Plate 2-Aminoanthracene

3: 1.0 ug/Plate Sodium Azide

4: 2.5 ug/Plate 2-Aminoanthracene

5: 50.0 ug/Plate 9-Aminoacridine

6: 5.0 ug/Plate 4-Nitro-O-Phenylenediamine

p: Precipitate

s: Slight Toxicity

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