

Experiment Number: 653940

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Phenylacetonitrile

CAS Number: 140-29-4

Date Report Requested: 09/11/2018

Time Report Requested: 05:56:41

NTP Study Number:

653940

Study Result:

Negative

Experiment Number: 653940

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Mutagenicity

G06: Ames Summary Data

Test Compound: Phenylacetoneitrile

CAS Number: 140-29-4

Date Report Requested: 09/11/2018

Time Report Requested: 05:56:41

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	90 ± 11.4	104 ± 4.7	106 ± 4.7	86 ± 2.3	86 ± 0.3
10.0			97 ± 3.7		80 ± 2.6
33.0	104 ± 6.1	93 ± 3.0	83 ± 1.7	90 ± 1.0	98 ± 5.8
100.0	82 ± 10.2	84 ± 1.2	96 ± 6.2	110 ± 3.8	109 ± 5.2
333.0	90 ± 6.8	101 ± 4.7	139 ± 11.9	113 ± 5.9	46 ± 20.1
667.0		94 ± 7.9	73 ± 17.6	89 ± 10.1	8 ± 6.4
1000.0	90 ± 8.5	104 ± 1.2		112 ± 10.8	
2000.0	Toxic				
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					414 ± 3.6
Positive Control ³	439 ± 1.3	488 ± 3.8			
Positive Control ⁴			738 ± 30.2		
Positive Control ⁵					
Positive Control ⁶				399 ± 15.9	

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Test Compound: Phenylacetoneitrile

CAS Number: 140-29-4

Date Report Requested: 09/11/2018

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	106 ± 4.3
10.0	101 ± 4.1
33.0	109 ± 9.4
100.0	106 ± 6.9
333.0	78 ± 7.3
667.0	50 ± 6.0
1000.0	
2000.0	
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	
Positive Control ⁵	273 ± 13.3
Positive Control ⁶	

Experiment Number: 653940

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

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

Date Report Requested: 09/11/2018

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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 ¹	16 ± 2.0	21 ± 2.2	8 ± 1.8	11 ± 2.6	10 ± 0.9
10.0			10 ± 0.3		8 ± 1.5
33.0	14 ± 3.0	16 ± 2.5	12 ± 1.2	13 ± 1.3	8 ± 0.9
100.0	18 ± 3.8	21 ± 1.9	9 ± 0.9	12 ± 1.5	6 ± 1.5
333.0	16 ± 1.5	18 ± 1.0	10 ± 0.7	12 ± 1.8	4 ± 1.3
667.0		19 ± 1.5	8 ± 1.9 ^s	15 ± 4.0	0 ± 0.0
1000.0	22 ± 0.9 ^s	21 ± 2.6		14 ± 2.2	
2000.0	Toxic				
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					56 ± 5.8
Positive Control ³	268 ± 15.9	241 ± 12.1			
Positive Control ⁵					
Positive Control ⁷				115 ± 1.0	
Positive Control ⁶			194 ± 3.2		

Experiment Number: 653940
Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data
Test Compound: Phenylacetonitrile
CAS Number: 140-29-4

Date Report Requested: 09/11/2018
Time Report Requested: 05:56:41

Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	16 ± 1.0
10.0	14 ± 1.5
33.0	14 ± 1.0
100.0	14 ± 1.0
333.0	11 ± 2.6
667.0	2 ± 2.3
1000.0	
2000.0	
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁵	86 ± 4.7
Positive Control ⁷	
Positive Control ⁶	

Experiment Number: 653940

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Phenylacetonitrile

CAS Number: 140-29-4

Date Report Requested: 09/11/2018

Time Report Requested: 05:56:41

Strain: TA1537

Dose (ug/Plate)	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control ¹	7 ± 1.5	14 ± 2.3	10 ± 1.5
10.0			11 ± 0.9
33.0			15 ± 1.9
67.0			8 ± 1.7
100.0	9 ± 1.2	16 ± 2.6	10 ± 1.9
200.0			8 ± 1.2
250.0	9 ± 2.7	14 ± 2.9	
333.0	7 ± 2.5	15 ± 5.0	
667.0	8 ± 3.2	13 ± 2.9	
1000.0	8 ± 0.9	8 ± 1.5	
Trial Summary	Negative	Negative	Negative
Positive Control ⁸		42 ± 2.6	94 ± 8.7
Positive Control ⁹	49 ± 4.7		

Experiment Number: 653940
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G06: Ames Summary Data
 Test Compound: Phenylacetoneitrile
 CAS Number: 140-29-4

Date Report Requested: 09/11/2018
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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 5% Rat S9	With 10% Rat S9
Vehicle Control ¹	136 ± 3.9	88 ± 5.0	88 ± 7.4	98 ± 2.7	171 ± 5.5
3.3					
10.0		86 ± 4.6	93 ± 0.3		160 ± 4.7
33.0	105 ± 7.3	89 ± 10.5	82 ± 4.4	94 ± 7.4	165 ± 12.7
67.0					
100.0	99 ± 6.7	100 ± 8.1	84 ± 0.9	93 ± 0.9	159 ± 7.2
200.0					
333.0	133 ± 6.4	101 ± 3.5	80 ± 5.3	84 ± 1.8	210 ± 17.8
667.0					180 ± 6.6
1000.0	104 ± 4.9 ^s	89 ± 12.6 ^s	108 ± 4.5 ^s	98 ± 2.8	
2000.0	Toxic			Toxic	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					
Positive Control ⁶				1198 ± 19.1	1081 ± 41.5
Positive Control ⁸					
Positive Control ¹⁰	259 ± 2.5	344 ± 30.8			
Positive Control ⁹			2408 ± 40.3		

Experiment Number: 653940

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

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

Date Report Requested: 09/11/2018

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Strain: TA97

Dose (ug/Plate)	With 10% Rat S9	With 30% Rat S9	With 30% Rat S9	With 30% Rat S9	With 30% Rat S9
Vehicle Control ¹	108 ± 3.7	112 ± 3.1	152 ± 12.2	211 ± 11.0	224 ± 21.0
3.3					
10.0			173 ± 6.8	201 ± 9.2	214 ± 19.9
33.0	98 ± 5.2	122 ± 3.1	178 ± 8.0	196 ± 7.0	248 ± 9.8
67.0					229 ± 18.1
100.0	106 ± 6.0	157 ± 8.2	198 ± 9.4	198 ± 7.4	263 ± 16.3
200.0					254 ± 14.5
333.0	106 ± 1.8	176 ± 23.5	194 ± 9.0	202 ± 7.8	
667.0		186 ± 17.3	210 ± 8.5		
1000.0	114 ± 9.5	133 ± 2.6		189 ± 3.8	
2000.0	81 ± 1.7 ^s				
Trial Summary	Negative	Equivocal	Equivocal	Negative	Negative
Positive Control ²					
Positive Control ⁶	832 ± 32.6	369 ± 0.7	462 ± 13.6		
Positive Control ⁸				415 ± 26.3	449 ± 28.4
Positive Control ¹⁰					
Positive Control ⁹					

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

Test Compound: Phenylacetoneitrile

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Strain: TA97

Dose (ug/Plate)	With 30% Rat S9	With 30% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	184 ± 7.0	172 ± 8.8	161 ± 12.2	113 ± 8.5
3.3				108 ± 2.3
10.0		182 ± 1.5	177 ± 1.2	107 ± 3.6
33.0	161 ± 2.4	204 ± 10.8	192 ± 8.7	110 ± 4.9
67.0				
100.0	166 ± 8.3	203 ± 1.5	220 ± 10.7	120 ± 3.5
200.0				
333.0	183 ± 11.1	82 ± 21.7	46 ± 10.0	0 ± 0.0 ^s
667.0		20 ± 6.7	15 ± 4.5	
1000.0	190 ± 4.3			
2000.0	105 ± 7.5 ^s			
Trial Summary	Negative	Negative	Equivocal	Negative
Positive Control ²				
Positive Control ⁶		398 ± 16.0	494 ± 3.5	
Positive Control ⁸	372 ± 9.5			1151 ± 64.6
Positive Control ¹⁰				
Positive Control ⁹				

Experiment Number: 653940

Test Type: Genetic Toxicology - Bacterial
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Test Compound: Phenylacetone
CAS Number: 140-29-4

Date Report Requested: 09/11/2018

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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 ¹	20 ± 3.2	16 ± 2.1	27 ± 4.6	27 ± 1.8	30 ± 4.9
10.0			31 ± 2.1		33 ± 0.3
33.0	14 ± 2.4	17 ± 2.3	33 ± 2.0	27 ± 2.5	33 ± 8.3
100.0	21 ± 2.2	21 ± 3.3	40 ± 2.0	26 ± 2.5	36 ± 0.7
333.0	20 ± 4.0	17 ± 1.5	37 ± 6.8	20 ± 1.2	8 ± 3.8
667.0		16 ± 2.4	30 ± 3.2	17 ± 2.4	0 ± 0.0
1000.0	20 ± 1.0 ^s	18 ± 2.3		10 ± 2.6	
2000.0	Toxic				
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ¹¹					158 ± 4.9
Positive Control ²			236 ± 14.2		
Positive Control ⁵				83 ± 3.2	
Positive Control ¹²	196 ± 16.2	189 ± 6.2			

Experiment Number: 653940

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

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

Date Report Requested: 09/11/2018

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	20 ± 1.0
10.0	24 ± 2.1
33.0	28 ± 3.6
100.0	18 ± 4.8
333.0	16 ± 5.9
667.0	6 ± 3.2
1000.0	
2000.0	
Trial Summary	Negative
Positive Control ¹¹	
Positive Control ²	81 ± 5.5
Positive Control ⁵	
Positive Control ¹²	

Experiment Number: 653940

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

G06: Ames Summary Data

Test Compound: **Phenylacetoneitrile**

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

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LEGEND

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: 0.4 ug/Plate 2-Aminoanthracene

3: 0.5 ug/Plate Sodium Azide

4: 0.75 ug/Plate 2-Aminoanthracene

5: 1.0 ug/Plate 2-Aminoanthracene

6: 2.0 ug/Plate 2-Aminoanthracene

7: 1.5 ug/Plate 2-Aminoanthracene

8: 2.5 ug/Plate 2-Aminoanthracene

9: 4.0 ug/Plate 9-Aminoacridine

10: 3.5 ug/Plate 9-Aminoacridine

11: 0.2 ug/Plate 2-Aminoanthracene

12: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****