

Experiment Number: 163546

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

G06: Ames Summary Data

Test Compound: **3-Pentenitrile**

CAS Number: **4635-87-4**

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

Time Report Requested: **21:30:10**

NTP Study Number:

163546

Study Result:

Equivocal

Experiment Number: 163546

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Mutagenicity

G06: Ames Summary Data

Test Compound: 3-Pentenenitrile

CAS Number: 4635-87-4

Date Report Requested: 09/12/2018

Time Report Requested: 21:30:10

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	107 ± 6.4	119 ± 3.5	159 ± 9.0	135 ± 0.7	172 ± 3.0
33.0		122 ± 0.9	145 ± 8.3		161 ± 2.0
100.0	108 ± 3.8	135 ± 4.1	118 ± 5.4	128 ± 4.4	151 ± 2.6
333.0	116 ± 3.5	122 ± 8.7	112 ± 4.1	129 ± 9.4	114 ± 6.8
1000.0	126 ± 8.2 ^s	133 ± 9.2	115 ± 4.8	121 ± 5.2	167 ± 4.9
3333.0	88 ± 12.2 ^s	79 ± 8.8 ^s	142 ± 11.7 ^s	118 ± 9.7 ^s	150 ± 24.5 ^s
6666.0	Toxic			76 ± 6.6 ^s	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					1548 ± 41.6
Positive Control ³	281 ± 0.9	352 ± 16.5			
Positive Control ⁴			903 ± 26.6		
Positive Control ⁵					
Positive Control ⁶				318 ± 19.7	

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Date Report Requested: 09/12/2018
Time Report Requested: 21:30:10

Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	133 ± 10.6
33.0	
100.0	119 ± 6.8
333.0	111 ± 11.0
1000.0	122 ± 5.5
3333.0	90 ± 4.9 ^s
6666.0	59 ± 5.0 ^s
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	
Positive Control ⁵	387 ± 29.8
Positive Control ⁶	

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Test Compound: 3-Pentenitrile

CAS Number: 4635-87-4

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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	13 ± 2.3	20 ± 5.6	6 ± 2.3	11 ± 0.7	9 ± 1.5
33.0	14 ± 2.3	21 ± 1.8	12 ± 2.1	9 ± 1.5	6 ± 0.6
100.0	11 ± 0.3	24 ± 0.3	9 ± 1.0	10 ± 1.9	10 ± 2.4
333.0	12 ± 1.8	16 ± 1.7	16 ± 6.5	7 ± 1.5	8 ± 3.0
1000.0	10 ± 3.2 ^s	14 ± 1.5	9 ± 1.0	10 ± 2.3	11 ± 3.2
3333.0	0 ± 0.3 ^s	2 ± 0.7 ^s	12 ± 4.5	7 ± 1.0	9 ± 1.9
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					137 ± 2.6
Positive Control ³	366 ± 8.2	262 ± 7.2			
Positive Control ⁴			73 ± 2.7		
Positive Control ⁵					
Positive Control ⁶				64 ± 2.2	

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	8 ± 0.7
33.0	7 ± 1.2
100.0	11 ± 2.2
333.0	12 ± 1.7
1000.0	9 ± 1.3
3333.0	6 ± 1.8 ^s
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	
Positive Control ⁵	78 ± 3.8
Positive Control ⁶	

Experiment Number: 163546

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: 3-Pentenenitrile

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Date Report Requested: 09/12/2018

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Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	5 ± 1.2	4 ± 0.6	5 ± 0.9	9 ± 1.5	7 ± 1.2
33.0	3 ± 1.5	6 ± 0.7	5 ± 1.8	7 ± 0.6	7 ± 3.2
100.0	3 ± 0.3	4 ± 0.0	7 ± 1.8	10 ± 0.6	6 ± 1.2
333.0	5 ± 0.7	3 ± 1.3	4 ± 1.0	9 ± 0.3	5 ± 0.3
1000.0	3 ± 0.3 ^s	5 ± 0.3	6 ± 2.5	11 ± 2.0	5 ± 1.5
3333.0	1 ± 1.0 ^s	4 ± 1.3 ^s	6 ± 1.2	7 ± 2.2 ^s	7 ± 2.0
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴					359 ± 16.6
Positive Control ⁶			68 ± 1.2		
Positive Control ⁷				24 ± 1.3	
Positive Control ⁸	298 ± 15.2	851 ± 33.8			

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Test Compound: 3-Pentenitrile
CAS Number: 4635-87-4

Date Report Requested: 09/12/2018
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Strain: TA1537

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	9 ± 2.0
33.0	4 ± 2.1
100.0	9 ± 2.1
333.0	9 ± 2.2
1000.0	6 ± 1.5
3333.0	5 ± 1.2 ^s
Trial Summary	Negative
Positive Control ⁴	
Positive Control ⁶	
Positive Control ⁷	119 ± 6.1
Positive Control ⁸	

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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 5% Hamster S9
Vehicle Control ¹	68 ± 0.9	69 ± 4.2	116 ± 5.7	136 ± 7.7	118 ± 4.5
33.0	69 ± 2.3	82 ± 5.6	111 ± 4.7	129 ± 3.9	111 ± 2.8
100.0	66 ± 7.9	87 ± 4.1	118 ± 9.2	142 ± 5.4	125 ± 7.4
333.0	71 ± 3.3	88 ± 15.3	108 ± 5.3	125 ± 11.7	110 ± 4.6
1000.0	73 ± 4.9 ^s	91 ± 16.2	120 ± 10.3	134 ± 9.0	125 ± 4.9
3333.0	34 ± 12.0 ^s	5 ± 3.2 ^s	125 ± 2.4	127 ± 7.0 ^s	142 ± 11.4
5000.0					
6666.0					
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴					1392 ± 134.9
Positive Control ⁶			836 ± 27.0		
Positive Control ⁷				333 ± 18.4	
Positive Control ⁹	1514 ± 41.9	1639 ± 51.7			

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

Test Compound: 3-Pentenenitrile

CAS Number: 4635-87-4

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Strain: TA97

Dose (ug/Plate)	With 5% Hamster S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	110 ± 5.5	134 ± 14.9	94 ± 2.8	106 ± 2.6	105 ± 6.3
33.0		146 ± 5.0	94 ± 3.2	107 ± 4.6	
100.0		163 ± 6.1	85 ± 0.9	103 ± 7.3	
333.0	106 ± 12.9	262 ± 6.1	86 ± 4.6 ^s	110 ± 2.8	116 ± 11.1
1000.0	106 ± 4.9	223 ± 26.6	92 ± 6.6 ^s	128 ± 11.3	137 ± 3.2
3333.0	117 ± 1.8	249 ± 27.2 ^s	73 ± 6.0 ^s	129 ± 4.7	199 ± 10.1
5000.0	20 ± 19.7				77 ± 44.5 ^s
6666.0	Toxic				27 ± 26.7 ^s
Trial Summary	Negative	Weakly Positive	Negative	Negative	Weakly Positive
Positive Control ⁴	1521 ± 84.0	1946 ± 63.8	687 ± 10.6	755 ± 5.8	778 ± 55.4
Positive Control ⁶					
Positive Control ⁷					
Positive Control ⁹					

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Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	158 ± 5.2
33.0	171 ± 15.2
100.0	183 ± 9.2
333.0	170 ± 13.4
1000.0	214 ± 15.9 ^s
3333.0	42 ± 5.7 ^s
5000.0	
6666.0	
Trial Summary	Equivocal
Positive Control ⁴	
Positive Control ⁶	
Positive Control ⁷	982 ± 115.5
Positive Control ⁹	

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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	16 ± 0.6	12 ± 1.9	24 ± 2.8	24 ± 2.0	27 ± 3.8
33.0		14 ± 3.5	26 ± 5.2		28 ± 2.9
100.0	14 ± 3.7	15 ± 2.6	24 ± 3.8	18 ± 3.2	25 ± 2.6
333.0	14 ± 1.9	14 ± 1.7	22 ± 1.5	19 ± 2.3	27 ± 4.0
1000.0	15 ± 2.3 ^s	19 ± 4.2	25 ± 2.3	21 ± 3.3	25 ± 2.6
3333.0	10 ± 3.5 ^s	11 ± 2.7 ^s	29 ± 2.5	25 ± 3.0	30 ± 4.4
6666.0	Toxic			12 ± 0.5 ^s	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ¹⁰					452 ± 14.7
Positive Control ²			290 ± 7.9		
Positive Control ⁵				86 ± 2.0	
Positive Control ¹¹	181 ± 14.0	105 ± 3.3			

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	27 ± 1.5
33.0	
100.0	27 ± 4.2
333.0	27 ± 3.5
1000.0	22 ± 2.1
3333.0	12 ± 2.5 ^s
6666.0	8 ± 3.8 ^s
Trial Summary	Negative
Positive Control ¹⁰	
Positive Control ²	74 ± 0.3
Positive Control ⁵	
Positive Control ¹¹	

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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: 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 ****