

Experiment Number: 302987

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

G06: Ames Summary Data

Test Compound: **Methylglutaronitrile**

CAS Number: 4553-62-2

Date Report Requested: 09/12/2018

Time Report Requested: 03:08:17

NTP Study Number:

302987

Study Result:

Weakly Positive

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Test Compound: Methylglutaronitrile

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Strain: TA100

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	63 ± 2.5	78 ± 3.6	89 ± 11.4
100.0	78 ± 7.2	88 ± 6.2	81 ± 4.7
333.0	78 ± 4.2	72 ± 0.3	82 ± 7.1
1000.0	66 ± 4.7	83 ± 5.8	84 ± 4.1
3333.0	81 ± 3.2	71 ± 12.6	80 ± 1.2
10000.0	73 ± 2.1	75 ± 5.5	87 ± 7.8
Trial Summary	Negative	Negative	Negative
Positive Control ²			389 ± 60.0
Positive Control ³	260 ± 16.8		
Positive Control ⁴		346 ± 12.0	

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Strain: TA1535

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	17 ± 3.9	8 ± 2.1	5 ± 1.7
100.0	13 ± 0.0	6 ± 0.3	8 ± 1.9
333.0	11 ± 3.5	7 ± 1.8	6 ± 0.9
1000.0	10 ± 2.6	6 ± 1.5	8 ± 1.5
3333.0	13 ± 1.9	6 ± 1.2	7 ± 1.7
10000.0	15 ± 2.1	7 ± 0.9	6 ± 1.2
Trial Summary	Negative	Negative	Negative
Positive Control ²			39 ± 1.5
Positive Control ³	95 ± 13.9		
Positive Control ⁵		72 ± 3.0	

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Test Compound: Methylglutaronitrile

CAS Number: 4553-62-2

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Strain: TA1537

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	7 ± 0.9	6 ± 0.7	5 ± 1.2	5 ± 0.9	6 ± 1.2
100.0	6 ± 0.7	6 ± 1.7	5 ± 1.2	5 ± 0.9	4 ± 0.9
333.0	4 ± 0.3	5 ± 3.2	5 ± 1.3	4 ± 1.2	5 ± 0.7
1000.0	4 ± 1.2	6 ± 1.2	6 ± 3.1	5 ± 0.6	3 ± 0.3
3333.0	5 ± 1.2	6 ± 1.2	5 ± 0.3	5 ± 1.2	3 ± 0.6
10000.0	6 ± 0.3	3 ± 0.3	5 ± 2.1	2 ± 0.3	5 ± 1.2
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴				734 ± 31.7	
Positive Control ⁵		69 ± 7.4			
Positive Control ⁶			23 ± 3.9		1213 ± 19.2
Positive Control ⁷	23 ± 1.7				

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Test Compound: Methylglutaronitrile

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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 5% Rat S9	With 5% Rat S9
Vehicle Control ¹	62 ± 3.6	72 ± 4.7	103 ± 4.7	208 ± 21.4	100 ± 8.5
100.0	51 ± 8.5	75 ± 3.8	112 ± 10.6	287 ± 31.9	103 ± 5.7
333.0	53 ± 8.0	73 ± 4.3	112 ± 5.5	295 ± 40.2	90 ± 11.7
1000.0	54 ± 3.3	77 ± 9.3	81 ± 11.0	287 ± 28.0	96 ± 0.3
3333.0	55 ± 2.0	77 ± 2.1	87 ± 11.6	322 ± 2.6	98 ± 0.7
10000.0	68 ± 4.4	80 ± 2.1 ^s	89 ± 5.7	236 ± 50.8	98 ± 5.0
Trial Summary	Negative	Negative	Negative	Equivocal	Negative
Positive Control ⁴					
Positive Control ⁵				1517 ± 18.7	1584 ± 18.3
Positive Control ⁶					
Positive Control ⁸	101 ± 9.9				
Positive Control ⁷		803 ± 66.2	295 ± 6.3		

Experiment Number: 302987

Test Type: Genetic Toxicology - Bacterial
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Test Compound: Methylglutaronitrile

CAS Number: 4553-62-2

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Strain: TA97

Dose (ug/Plate)	With 10% Rat S9	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9	With 30% Rat S9
Vehicle Control ¹	99 ± 8.3	169 ± 21.1	158 ± 4.7	160 ± 4.8	174 ± 7.2
100.0	75 ± 6.8	176 ± 17.9	145 ± 3.8	126 ± 22.5	184 ± 3.2
333.0	76 ± 5.8	186 ± 11.8	139 ± 15.3	130 ± 18.4	179 ± 6.1
1000.0	87 ± 10.3	197 ± 6.2	151 ± 6.4	152 ± 7.1	172 ± 18.6
3333.0	72 ± 4.8	206 ± 50.4	117 ± 1.7	159 ± 2.8	213 ± 13.3
10000.0	101 ± 3.2	294 ± 43.7	140 ± 23.8	180 ± 3.9	177 ± 4.6
Trial Summary	Negative	Equivocal	Negative	Negative	Negative
Positive Control ⁴					
Positive Control ⁵	548 ± 25.2	776 ± 22.0	741 ± 9.3		
Positive Control ⁶				316 ± 9.7	382 ± 6.7
Positive Control ⁸					
Positive Control ⁷					

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Strain: TA97

Dose (ug/Plate)	With 5% Hamster S9	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	102 ± 8.5	93 ± 2.9	95 ± 4.7	222 ± 13.8	154 ± 3.2
100.0	109 ± 5.8	119 ± 6.7	107 ± 10.5	271 ± 16.9	159 ± 1.3
333.0	102 ± 6.0	113 ± 3.8	94 ± 4.4	369 ± 25.0	134 ± 10.3
1000.0	101 ± 4.3	114 ± 6.0	101 ± 6.1	378 ± 6.1	152 ± 14.6
3333.0	119 ± 14.8	121 ± 9.4	105 ± 5.0	239 ± 11.9	260 ± 22.0
10000.0	106 ± 6.1	146 ± 3.4	110 ± 8.0	47 ± 12.4	256 ± 33.5
Trial Summary	Negative	Equivocal	Negative	Weakly Positive	Weakly Positive
Positive Control ⁴	1392 ± 134.9	684 ± 32.0	755 ± 5.8		
Positive Control ⁵					
Positive Control ⁶				859 ± 55.2	1037 ± 44.7
Positive Control ⁸					
Positive Control ⁷					

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Strain: TA98

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	14 ± 2.9	20 ± 1.2	26 ± 4.0
100.0	13 ± 1.8	17 ± 1.2	20 ± 0.9
333.0	12 ± 0.9	18 ± 3.2	18 ± 4.9
1000.0	11 ± 1.5	21 ± 1.9	19 ± 1.7
3333.0	12 ± 1.8	18 ± 2.6	21 ± 0.9
10000.0	11 ± 2.3	21 ± 3.6	23 ± 4.3
Trial Summary	Negative	Negative	Negative
Positive Control ⁹			90 ± 4.4
Positive Control ²		140 ± 15.1	
Positive Control ¹⁰	98 ± 11.3		

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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: 2.0 ug/Plate 2-Aminoanthracene

6: 2.5 ug/Plate 2-Aminoanthracene

7: 4.0 ug/Plate 9-Aminoacridine

8: 3.5 ug/Plate 9-Aminoacridine

9: 0.2 ug/Plate 2-Aminoanthracene

10: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****