

Experiment Number: 541901

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

G06: Ames Summary Data

Test Compound: **4-Nitro-o-phenylenediamine**

CAS Number: **99-56-9**

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

Time Report Requested: **16:34:15**

NTP Study Number:

541901

Study Result:

Positive

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	117 ± 11.6	111 ± 9.9	100 ± 7.2	124 ± 2.3	121 ± 1.9
1.0	128 ± 9.1	130 ± 16.7			
3.0		230 ± 5.8	130 ± 2.6	156 ± 7.9	160 ± 10.7
10.0	396 ± 31.3	358 ± 6.7			208 ± 10.6
33.0	759 ± 18.8	595 ± 35.0	277 ± 5.3	332 ± 8.1	446 ± 0.9
100.0	889 ± 38.4	595 ± 21.0		516 ± 11.9	
333.0	501 ± 51.6		706 ± 51.7	673 ± 16.7	1504 ± 45.3
1000.0			714 ± 44.3	572 ± 14.1	70 ± 23.9
3333.0			548 ± 156.2		
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ²	334 ± 16.7	356 ± 10.3			
Positive Control ³			444 ± 5.8	360 ± 15.5	1377 ± 27.2

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Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	104 ± 2.3
1.0	118 ± 6.8
3.0	166 ± 5.0
10.0	251 ± 9.8
33.0	552 ± 9.5
100.0	874 ± 34.8
333.0	
1000.0	
3333.0	
Trial Summary	Positive
Positive Control ²	
Positive Control ³	249 ± 14.6

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Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	36 ± 2.7	31 ± 3.2	11 ± 2.6	8 ± 0.3	13 ± 3.5
1.0	31 ± 3.2	30 ± 2.2			
3.0		32 ± 2.6	10 ± 2.6	12 ± 3.0	7 ± 1.5
10.0	41 ± 6.0	35 ± 3.2			8 ± 3.2
33.0	51 ± 5.0	42 ± 5.2	12 ± 0.0	13 ± 3.2	14 ± 3.5
100.0	69 ± 5.3	61 ± 4.9		18 ± 1.5	
333.0	65 ± 1.7		16 ± 1.9	23 ± 2.2	112 ± 6.6
1000.0			27 ± 4.9	28 ± 1.5	65 ± 13.2
3333.0			24 ± 9.4		
Trial Summary	Weakly Positive	Weakly Positive	Weakly Positive	Positive	Equivocal
Positive Control ²	413 ± 29.9	380 ± 13.6			
Positive Control ⁴			238 ± 6.0	155 ± 3.5	395 ± 26.0

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Strain: TA1535

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	15 ± 1.2
1.0	
3.0	11 ± 2.5
10.0	11 ± 2.1
33.0	20 ± 1.0
100.0	42 ± 4.5
333.0	137 ± 8.7
1000.0	
3333.0	
Trial Summary	Positive
Positive Control ²	
Positive Control ⁴	206 ± 10.4

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Mutagenicity**G06: Ames Summary Data**

Test Compound: 4-Nitro-o-phenylenediamine

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Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	8 ± 2.1	4 ± 1.2	9 ± 2.2	6 ± 1.8	9 ± 2.3
1.0	13 ± 0.7	12 ± 2.0			
3.0		31 ± 0.3	8 ± 0.6	10 ± 2.6	11 ± 2.1
10.0	68 ± 8.3	78 ± 9.0			23 ± 2.1
33.0	217 ± 37.7	290 ± 16.9	17 ± 1.7	21 ± 1.7	46 ± 5.6
100.0	441 ± 10.9	483 ± 15.3		45 ± 3.5	
333.0	146 ± 58.2		85 ± 16.2	99 ± 3.5	507 ± 41.8
1000.0			218 ± 9.6	272 ± 24.7	5 ± 1.3
3333.0			208 ± 40.9		
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ⁴			152 ± 21.9	154 ± 4.6	482 ± 12.9
Positive Control ⁵	166 ± 16.0	148 ± 1.5			

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Strain: TA1537

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	4 ± 1.0
1.0	
3.0	8 ± 1.3
10.0	18 ± 1.5
33.0	70 ± 4.7
100.0	220 ± 12.3
333.0	438 ± 23.4
1000.0	
3333.0	
Trial Summary	Positive
Positive Control ⁴	175 ± 5.5
Positive Control ⁵	

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	21 ± 3.2	17 ± 0.6	25 ± 2.6	33 ± 2.4	22 ± 3.1
0.1		29 ± 5.0		28 ± 2.4	
1.0	151 ± 11.9	162 ± 13.7		49 ± 4.7	
3.0		490 ± 32.8	96 ± 10.8	101 ± 6.0	146 ± 17.0
10.0	783 ± 48.7	760 ± 18.3		197 ± 11.5	368 ± 18.2
33.0	1140 ± 17.6	946 ± 26.5	481 ± 72.5	517 ± 45.5	875 ± 25.6
100.0	1288 ± 23.8				
333.0	1293 ± 16.4		1252 ± 83.2		1675 ± 141.9
1000.0			1428 ± 149.1		1332 ± 97.2
3333.0			1600 ± 399.7		
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ³			439 ± 28.9	348 ± 3.4	1201 ± 38.4
Positive Control ⁶	597 ± 4.6	505 ± 9.0			

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Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	31 ± 2.3
0.1	27 ± 3.1
1.0	71 ± 11.9
3.0	199 ± 36.0
10.0	385 ± 58.6
33.0	751 ± 11.9
100.0	
333.0	
1000.0	
3333.0	
Trial Summary	Positive
Positive Control ³	368 ± 24.7
Positive Control ⁶	

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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: 1.0 ug/Plate Sodium Azide

3: 1.0 ug/Plate 2-Aminoanthracene

4: 2.5 ug/Plate 2-Aminoanthracene

5: 50.0 ug/Plate 9-Aminoacridine

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

**** END OF REPORT ****