

Experiment Number: 803155

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

G06: Ames Summary Data

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

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

Date Report Requested: **09/15/2018**

Time Report Requested: **09:11:21**

NTP Study Number:

803155

Study Result:

Positive

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	Without S9	With 10% Rat S9
Vehicle Control ¹	222 ± 21.5	210 ± 9.1	127 ± 3.1	114 ± 21.9	255 ± 4.2
0.3				142 ± 6.7	
1.0	229 ± 11.6	231 ± 8.5	161 ± 18.3		
3.3	357 ± 9.2	290 ± 12.4	207 ± 11.7	269 ± 15.2	276 ± 15.3
10.0	548 ± 18.5	510 ± 6.8	368 ± 1.3	463 ± 5.0	347 ± 8.5
33.0	1173 ± 11.6	1122 ± 28.6	943 ± 12.1	1034 ± 16.2	507 ± 9.5
100.0	973 ± 18.0 ^s	948 ± 33.7 ^s	901 ± 47.9 ^s	1046 ± 30.8 ^s	969 ± 30.2
333.0					1545 ± 43.5
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ²					
Positive Control ³					697 ± 12.1
Positive Control ⁴	1248 ± 29.5	890 ± 26.9	1330 ± 22.3	1286 ± 47.8	

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Strain: TA100

Dose (ug/Plate)	With 10% Rat S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	309 ± 16.0	107 ± 6.4	178 ± 9.4	239 ± 10.8	278 ± 4.7
0.3					
1.0			183 ± 6.9		
3.3	320 ± 11.2	163 ± 4.0		291 ± 4.9	281 ± 13.0
10.0	402 ± 14.4	227 ± 3.3	305 ± 8.4	373 ± 10.8	355 ± 8.0
33.0	523 ± 2.9	380 ± 5.5	532 ± 25.0	895 ± 49.2	736 ± 20.2
100.0	880 ± 28.6	775 ± 19.1	902 ± 15.6	1902 ± 29.5	1468 ± 43.5
333.0	1335 ± 34.6 ^s	1273 ± 14.0 ^s	1643 ± 30.5 ^s	1937 ± 32.1 ^s	2002 ± 55.3 ^s
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ²				907 ± 31.7	1236 ± 31.9
Positive Control ³	1093 ± 47.3	700 ± 36.5	986 ± 28.1		
Positive Control ⁴					

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Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	111 ± 7.0	158 ± 10.8
0.3		
1.0		182 ± 10.4
3.3	149 ± 7.4	
10.0	251 ± 25.8	329 ± 9.9
33.0	524 ± 9.8	824 ± 13.2
100.0	1413 ± 15.9	1913 ± 32.8
333.0	1525 ± 60.4 ^s	1715 ± 44.6 ^s
Trial Summary	Positive	Positive
Positive Control ²	1017 ± 31.0	1344 ± 32.1
Positive Control ³		
Positive Control ⁴		

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Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	Without S9	Without S9	With 10% Rat S9
Vehicle Control ¹	30 ± 1.3	41 ± 3.8	21 ± 1.8	31 ± 3.0	28 ± 4.2
0.3				20 ± 2.9	
1.0	30 ± 6.9	44 ± 4.1	18 ± 3.2		
3.3	25 ± 2.0	44 ± 3.5	16 ± 3.5	19 ± 1.2	29 ± 0.6
10.0	34 ± 2.5	43 ± 2.3	28 ± 1.2	33 ± 3.8	29 ± 4.7
33.0	36 ± 1.9	53 ± 2.2	37 ± 3.5	50 ± 4.5	37 ± 3.7
100.0	42 ± 1.9 ^s	55 ± 4.8 ^s	39 ± 6.7 ^s	50 ± 4.0 ^s	40 ± 3.2
333.0					52 ± 2.8
Trial Summary	Negative	Negative	Equivocal	Equivocal	Weakly Positive
Positive Control ²					
Positive Control ³					114 ± 7.6
Positive Control ⁴	1109 ± 16.0	694 ± 10.3	1122 ± 47.7	1025 ± 27.8	

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Strain: TA1535

Dose (ug/Plate)	With 10% Rat S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	57 ± 2.2	9 ± 0.6	12 ± 2.6	30 ± 4.1	68 ± 6.7
0.3					
1.0			10 ± 2.1		
3.3	51 ± 1.2	10 ± 3.3		27 ± 4.4	56 ± 3.5
10.0	64 ± 1.2	11 ± 1.5	14 ± 0.6	32 ± 3.3	63 ± 9.0
33.0	72 ± 8.4	15 ± 1.2	29 ± 3.8	32 ± 3.7	68 ± 7.4
100.0	65 ± 5.2	27 ± 2.5	35 ± 2.2	50 ± 3.8	62 ± 0.6
333.0	72 ± 1.5 ^s	46 ± 8.5 ^s	74 ± 4.5	69 ± 1.2 ^s	76 ± 2.6 ^s
Trial Summary	Negative	Positive	Positive	Weakly Positive	Negative
Positive Control ²				135 ± 5.0	128 ± 17.6
Positive Control ³	125 ± 10.6	73 ± 5.2	68 ± 3.9		
Positive Control ⁴					

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Strain: TA1535

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	14 ± 3.5	11 ± 0.9
0.3		
1.0		14 ± 3.4
3.3	12 ± 1.2	
10.0	11 ± 0.9	17 ± 0.7
33.0	22 ± 1.2	26 ± 2.0
100.0	52 ± 2.7	50 ± 3.6
333.0	71 ± 2.1 ^s	70 ± 4.4
Trial Summary	Positive	Positive
Positive Control ²	86 ± 2.3	107 ± 9.0
Positive Control ³		
Positive Control ⁴		

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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	3 ± 0.7	2 ± 0.9	6 ± 0.9	9 ± 1.2	6 ± 3.6
0.3		11 ± 2.4			
1.0	9 ± 1.7			9 ± 0.7	
3.3	24 ± 1.5	29 ± 3.6	8 ± 1.3		12 ± 1.5
10.0	85 ± 4.6	82 ± 2.1	12 ± 1.9	14 ± 0.3	15 ± 1.5
33.0	352 ± 12.3	316 ± 10.0	26 ± 2.6	28 ± 1.2	53 ± 5.9
100.0	380 ± 26.1 ^s	316 ± 8.6 ^s	53 ± 1.5	57 ± 4.0	192 ± 3.5
333.0			181 ± 6.7	199 ± 1.9	484 ± 14.1 ^s
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ²					82 ± 5.5
Positive Control ³			45 ± 7.4	95 ± 2.8	
Positive Control ⁵	451 ± 13.1	353 ± 32.7			

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Strain: TA1537

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	6 ± 2.3
0.3	
1.0	8 ± 2.7
3.3	
10.0	20 ± 1.3
33.0	54 ± 3.1
100.0	195 ± 11.8
333.0	423 ± 18.0 ^s
Trial Summary	Positive
Positive Control ²	120 ± 4.7
Positive Control ³	
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	12 ± 1.8	18 ± 2.5	17 ± 2.1	26 ± 2.1	24 ± 2.5
0.03		17 ± 2.4		25 ± 1.5	
0.3		57 ± 4.5			
1.0	186 ± 3.2			74 ± 9.1	
3.3	521 ± 14.3	434 ± 12.9	284 ± 12.3		291 ± 8.0
10.0	1476 ± 17.5	1379 ± 31.6	813 ± 19.2	540 ± 10.5	842 ± 19.5
33.0	3344 ± 121.6		2072 ± 100.0		2338 ± 74.8
100.0	4397 ± 39.9	3966 ± 46.4 ^s	2793 ± 112.6	2328 ± 33.2	3480 ± 42.7
333.0			3110 ± 59.4	3079 ± 36.5 ^s	4114 ± 56.2
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ²					430 ± 23.6
Positive Control ³			329 ± 25.0	587 ± 5.0	
Positive Control ⁶	1649 ± 48.4	1554 ± 101.6			

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Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	21 ± 2.2
0.03	23 ± 5.2
0.3	
1.0	71 ± 1.2
3.3	
10.0	589 ± 19.2
33.0	1587 ± 29.5
100.0	
333.0	4147 ± 76.4 ^s
Trial Summary	Positive
Positive Control ²	876 ± 58.9
Positive Control ³	
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: 0.75 ug/Plate 2-Aminoanthracene

3: 1.5 ug/Plate 2-Aminoanthracene

4: 2.5 ug/Plate Sodium Azide

5: 80.0 ug/Plate 9-Aminoacridine

6: 12.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****