

Experiment Number: 425879

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: 1,8-Dihydroxy-4,5-dinitroanthraquinone

CAS Number: 81-55-0

Date Report Requested: 09/15/2018

Time Report Requested: 06:07:33

NTP Study Number:

425879

Study Result:

Positive

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control ¹	79 ± 3.0	93 ± 20.5	98 ± 5.9	116 ± 4.9	117 ± 1.2
1.0		87 ± 7.9			
3.0		102 ± 4.9			
10.0		170 ± 2.9	208 ± 6.2		
16.0			228 ± 9.5		
33.0	265 ± 18.0	246 ± 11.6	205 ± 9.3		331 ± 19.2
67.0			207 ± 10.6		
100.0	189 ± 7.9 ^P	194 ± 10.2 ^P	193 ± 7.5 ^P	329 ± 26.1	450 ± 21.5 ^P
167.0			199 ± 21.2 ^P		
333.0	0 ± 0.0 ^P			395 ± 55.2 ^P	105 ± 9.7 ^P
1000.0	Toxic			231 ± 5.5 ^P	152 ± 13.0 ^P
3333.0	0 ± 0.0 ^P			275 ± 44.4 ^P	168 ± 3.8 ^P
10000.0				90 ± 26.0 ^P	
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ²				1108 ± 187.2	1564 ± 41.7
Positive Control ³	461 ± 65.5	354 ± 21.4	1423 ± 157.0		

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Strain: TA100

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	140 ± 7.6	152 ± 10.0	111 ± 4.9	120 ± 9.7
1.0				
3.0	194 ± 14.7			177 ± 4.2
10.0	344 ± 12.3			299 ± 11.6
16.0				
33.0	276 ± 21.5		435 ± 11.5	242 ± 55.4
67.0				
100.0	274 ± 4.2 ^P	342 ± 15.2	459 ± 16.6 ^P	269 ± 6.8 ^P
167.0				
333.0	199 ± 18.6 ^P	414 ± 18.2 ^P	517 ± 14.0 ^P	177 ± 5.5 ^P
1000.0		242 ± 52.7 ^P	419 ± 13.6 ^P	
3333.0		124 ± 13.2 ^P	182 ± 8.5 ^P	
10000.0		111 ± 32.1 ^P		
Trial Summary	Positive	Positive	Positive	Positive
Positive Control ²	2501 ± 160.8	1885 ± 73.0	1597 ± 187.8	1869 ± 161.0
Positive Control ³				

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Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control ¹	18 ± 3.1	4 ± 1.9	8 ± 0.9	16 ± 3.2	10 ± 1.5
3.0		10 ± 1.5			
10.0		12 ± 3.2	15 ± 3.1		16 ± 2.0
16.0			34 ± 2.7		
33.0	29 ± 3.8	17 ± 1.5	56 ± 6.2		28 ± 2.5
67.0			35 ± 2.2		
100.0	38 ± 3.5	11 ± 1.5 ^P	16 ± 2.4 ^P	36 ± 2.1	17 ± 2.0 ^P
167.0			11 ± 2.3 ^P		
333.0	39 ± 0.7 ^P	3 ± 0.9 ^P		38 ± 3.6 ^P	5 ± 1.8 ^P
1000.0	0 ± 0.0 ^P			20 ± 3.5 ^P	1 ± 0.7 ^P
3333.0	0 ± 0.0 ^P			0 ± 0.0 ^P	
10000.0				0 ± 0.0 ^P	
Trial Summary	Positive	Equivocal	Positive	Positive	Positive
Positive Control ²				134 ± 6.6	65 ± 6.6
Positive Control ⁴					
Positive Control ³	804 ± 41.4	284 ± 49.0	34 ± 3.2		

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Strain: TA1535

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	6 ± 1.9	17 ± 5.8	9 ± 1.9	9 ± 0.7
3.0				
10.0	12 ± 4.3		20 ± 3.2	16 ± 1.2
16.0	15 ± 3.0			22 ± 1.3
33.0	19 ± 5.5		25 ± 1.8	28 ± 2.0
67.0	15 ± 2.1			20 ± 2.8
100.0	11 ± 1.5 ^P	35 ± 2.0	14 ± 3.1 ^P	13 ± 1.2 ^P
167.0	7 ± 1.2 ^P			10 ± 2.1 ^P
333.0		50 ± 1.7	7 ± 1.8 ^P	
1000.0		Toxic	1 ± 0.9 ^P	
3333.0		0 ± 0.0 ^P		
10000.0		0 ± 0.0 ^P		
Trial Summary	Equivocal	Positive	Positive	Positive
Positive Control ²		170 ± 10.7	127 ± 9.4	
Positive Control ⁴	37 ± 8.2			41 ± 9.0
Positive Control ³				

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Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control ¹	7 ± 0.7	7 ± 1.3	7 ± 1.0	9 ± 2.0	13 ± 2.6
3.0		18 ± 2.6	10 ± 1.9		
10.0		43 ± 4.3	11 ± 2.4		66 ± 3.3
33.0	105 ± 5.5	195 ± 21.4	32 ± 5.8		243 ± 37.2
100.0	163 ± 15.4	286 ± 3.5 ^P	229 ± 42.3 ^P	163 ± 7.5	181 ± 15.1 ^P
333.0	Toxic	115 ± 3.5 ^P	87 ± 19.6 ^P	72 ± 2.3 ^P	96 ± 9.7 ^P
1000.0	0 ± 0.0 ^P			Toxic	114 ± 2.6 ^P
3333.0	0 ± 0.0 ^P			Toxic	
10000.0				0 ± 0.0 ^P	
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ²				180 ± 13.3	96 ± 17.9
Positive Control ⁴					
Positive Control ⁵	353 ± 133.3	385 ± 3.9	91 ± 4.1		

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Strain: TA1537

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	7 ± 1.0	9 ± 1.9	14 ± 1.2	9 ± 0.3
3.0	6 ± 0.9			14 ± 2.6
10.0	12 ± 0.9		82 ± 2.0	19 ± 3.3
33.0	35 ± 6.4		283 ± 2.6	36 ± 5.8
100.0	178 ± 24.2 ^P	143 ± 7.1	106 ± 4.0 ^P	254 ± 28.6 ^P
333.0	116 ± 18.5 ^P	159 ± 6.7 ^P	125 ± 9.5 ^P	65 ± 5.4 ^P
1000.0		61 ± 14.8 ^P	148 ± 12.7 ^P	
3333.0		Toxic		
10000.0		0 ± 0.0 ^P		
Trial Summary	Positive	Positive	Positive	Positive
Positive Control ²		161 ± 7.5	144 ± 11.6	
Positive Control ⁴	131 ± 34.3			128 ± 23.4
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% Rat S9
Vehicle Control ¹	23 ± 1.5	11 ± 1.5	24 ± 2.6	36 ± 0.7	17 ± 1.9
1.0	24 ± 1.5				
3.0	28 ± 1.5				26 ± 5.8
10.0	27 ± 3.0	109 ± 9.0			78 ± 9.3
16.0		106 ± 6.4			
33.0	42 ± 1.2 ^p	90 ± 7.8		77 ± 7.2 ^p	135 ± 8.7
67.0		36 ± 6.5			
100.0	103 ± 8.7 ^p	19 ± 2.9 ^p	69 ± 4.3	69 ± 7.2 ^p	70 ± 20.7 ^p
167.0		5 ± 1.5 ^p			
333.0			111 ± 25.8 ^p	65 ± 8.1 ^p	27 ± 2.5 ^p
1000.0			95 ± 13.6 ^p	75 ± 9.4 ^p	
3333.0			162 ± 30.6 ^p	157 ± 6.7 ^p	
10000.0			58 ± 21.3 ^p		
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control ²			1009 ± 179.5	856 ± 96.3	1565 ± 202.9
Positive Control ⁶	193 ± 20.3	253 ± 32.0			

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Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	23 ± 2.3	37 ± 1.5	18 ± 1.5
1.0			
3.0			29 ± 4.2
10.0			61 ± 9.1
16.0			
33.0		109 ± 1.2 ^P	130 ± 8.9
67.0			
100.0	63 ± 7.9	131 ± 11.5 ^P	101 ± 15.4 ^P
167.0			
333.0	87 ± 5.2 ^P	155 ± 2.3 ^P	35 ± 3.4 ^P
1000.0	122 ± 8.5 ^P	152 ± 14.3 ^P	
3333.0	100 ± 20.9 ^P	157 ± 3.6 ^P	
10000.0	53 ± 12.5 ^P		
Trial Summary	Positive	Positive	Positive
Positive Control ²	1825 ± 313.5	1328 ± 54.8	1442 ± 219.6
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 2-Aminoanthracene

3: 3.3 ug/Plate Sodium Azide

4: 2.0 ug/Plate 2-Aminoanthracene

5: 33.0 ug/Plate 9-Aminoacridine

6: 3.3 ug/Plate 4-Nitro-O-Phenylenediamine

p: Precipitate

**** END OF REPORT ****