

Experiment Number: A32254

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

G06: Ames Summary Data

Test Compound: **Retinal**

CAS Number: **116-31-4**

Date Report Requested: **09/16/2018**

Time Report Requested: **17:27:44**

NTP Study Number:

A32254

Study Result:

Positive

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G06: Ames Summary Data

Date Report Requested: 09/16/2018

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

Test Compound: Retinal

Time Report Requested: 17:27:44

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	123 ± 2.8	112 ± 3.3	117 ± 4.5	108 ± 2.9	120 ± 4.2
10.0	116 ± 4.9				
33.0	112 ± 14.3				
100.0	114 ± 8.7	104 ± 6.4	124 ± 3.2		117 ± 2.2
166.0		116 ± 3.3	138 ± 6.7		
333.0	165 ± 2.3	134 ± 2.4	165 ± 4.7		114 ± 3.1
666.0		186 ± 6.1	183 ± 1.2		
1000.0	175 ± 6.7 ^p	222 ± 22.7 ^p	240 ± 9.3 ^p	109 ± 6.9	116 ± 3.9
1666.0				124 ± 3.0	
3333.0				133 ± 3.1	211 ± 7.1
6666.0				232 ± 27.9	
10000.0				13 ± 7.0 ^x	237 ± 4.3 ^p
Trial Summary	Equivocal	Weakly Positive	Positive	Equivocal	Positive
Positive Control ²					
Positive Control ³				831 ± 7.9	
Positive Control ⁴	878 ± 19.5	838 ± 20.7	854 ± 18.7		
Positive Control ⁵					570 ± 11.9

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Strain: TA100

Dose (ug/Plate)	With 30% Rat S9	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	114 ± 4.9	125 ± 6.1	110 ± 2.4	124 ± 5.7	108 ± 3.8
10.0					
33.0					
100.0				123 ± 4.5	
166.0					
333.0				121 ± 3.5	
666.0					
1000.0	104 ± 9.3	134 ± 5.2	101 ± 3.5	126 ± 9.1	100 ± 6.5
1666.0	115 ± 3.2	144 ± 10.0	117 ± 15.3		108 ± 3.8
3333.0	140 ± 1.2	176 ± 10.4	144 ± 10.4	179 ± 6.2	139 ± 3.7
6666.0	217 ± 27.8	219 ± 14.7	239 ± 11.2		220 ± 3.1
10000.0	273 ± 10.1 ^P	292 ± 2.1 ^P	25 ± 10.2 ^X	309 ± 22.1 ^P	264 ± 4.3 ^P
Trial Summary	Positive	Positive	Equivocal	Weakly Positive	Positive
Positive Control ²			951 ± 18.9		
Positive Control ³	618 ± 8.2			620 ± 12.8	751 ± 20.6
Positive Control ⁴					
Positive Control ⁵		510 ± 7.5			

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	116 ± 6.5
10.0	
33.0	
100.0	
166.0	
333.0	
666.0	
1000.0	120 ± 5.7
1666.0	129 ± 3.5
3333.0	173 ± 8.2
6666.0	203 ± 6.7
10000.0	249 ± 37.0 ^p
Trial Summary	Positive
Positive Control ²	
Positive Control ³	575 ± 23.6
Positive Control ⁴	
Positive Control ⁵	

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Test Compound: Retinal
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Strain: TA1535

Dose (ug/Plate)	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control ¹	11 ± 2.3	15 ± 1.7	12 ± 2.6
100.0	11 ± 1.8		
166.0	11 ± 1.0		
333.0	10 ± 2.3		
666.0	13 ± 0.3		
1000.0	11 ± 0.0 ^P	18 ± 2.0	14 ± 2.9
1666.0		17 ± 1.2	10 ± 1.7
3333.0		13 ± 0.3	10 ± 0.3
6666.0		13 ± 1.7	13 ± 2.0
10000.0		13 ± 3.0 ^P	10 ± 2.5 ^P
Trial Summary	Negative	Negative	Negative
Positive Control ⁴	926 ± 13.2		
Positive Control ⁵			116 ± 6.8
Positive Control ⁶		117 ± 10.7	

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Time Report Requested: 17:27:44

Strain: TA98

Dose (ug/Plate)	Without S9	With 30% Rat S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	22 ± 2.9	22 ± 2.3	23 ± 3.5	18 ± 2.1
10.0	27 ± 3.5			
33.0	23 ± 0.7			
100.0	27 ± 2.3	25 ± 3.5	21 ± 2.0	
333.0	24 ± 6.0	25 ± 3.0	26 ± 3.6	
1000.0	26 ± 2.9 ^P	22 ± 2.6	25 ± 3.0	19 ± 2.6
1666.0				17 ± 2.6
3333.0		21 ± 1.2	39 ± 1.0	15 ± 2.1
6666.0				18 ± 3.8
10000.0		17 ± 1.3 ^P	55 ± 2.3 ^P	12 ± 0.9 ^P
Trial Summary	Negative	Negative	Equivocal	Negative
Positive Control ³			561 ± 10.4	718 ± 5.4
Positive Control ⁷	500 ± 14.2			
Positive Control ⁵		449 ± 16.3		

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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: 1.0 ug/Plate 2-Aminoanthracene
- 3: 2.0 ug/Plate 2-Aminoanthracene
- 4: 5.0 ug/Plate Sodium Azide
- 5: 5.0 ug/Plate 2-Aminoanthracene
- 6: 10.0 ug/Plate 2-Aminoanthracene
- 7: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine
- p: Precipitate
- x: Slight Toxicity and Precipitate

**** END OF REPORT ****