

Experiment Number: 854421

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

G06: Ames Summary Data

Test Compound: **C.I. Pigment red 81**

CAS Number: **12224-98-5**

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

Time Report Requested: **12:25:04**

NTP Study Number:

854421

Study Result:

Negative

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Mutagenicity

G06: Ames Summary Data

Test Compound: C.I. Pigment red 81

CAS Number: 12224-98-5

Date Report Requested: 09/16/2018

Time Report Requested: 12:25:04

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	109 ± 2.0	107 ± 5.5	134 ± 10.7	142 ± 3.2	117 ± 3.7
100.0	126 ± 2.1	108 ± 6.8	114 ± 5.0	158 ± 2.3	116 ± 9.3
333.0	128 ± 4.6	111 ± 7.3 ^p	120 ± 9.9	126 ± 5.5	99 ± 2.0
1000.0	117 ± 8.7 ^p	106 ± 5.5 ^p	118 ± 7.1 ^p	170 ± 1.5	117 ± 3.8 ^p
3333.0	127 ± 0.9 ^p	97 ± 7.9 ^p	107 ± 4.5 ^p	155 ± 5.5 ^p	122 ± 11.1 ^p
10000.0	81 ± 3.9 ^p	89 ± 14.6 ^p	102 ± 5.6 ^p	153 ± 3.9 ^p	108 ± 7.8 ^p
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					385 ± 12.9
Positive Control ³	447 ± 17.6	285 ± 6.9			
Positive Control ⁴			2024 ± 117.9		
Positive Control ⁵					
Positive Control ⁶				1473 ± 44.8	

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	143 ± 9.7
100.0	143 ± 2.6
333.0	146 ± 11.0
1000.0	146 ± 5.0
3333.0	145 ± 4.5 ^P
10000.0	150 ± 4.5 ^P
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	
Positive Control ⁵	847 ± 22.4
Positive Control ⁶	

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Date Report Requested: 09/16/2018

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Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	29 ± 3.4	22 ± 3.0	18 ± 2.4	18 ± 2.2	16 ± 1.7
100.0	30 ± 4.7	21 ± 3.2	21 ± 2.6	21 ± 3.2	20 ± 3.4
333.0	34 ± 1.5 ^p	28 ± 4.8	20 ± 2.9	16 ± 4.2	14 ± 1.5
1000.0	26 ± 3.0 ^p	22 ± 3.8	21 ± 3.7 ^p	23 ± 2.7	18 ± 0.9 ^p
3333.0	25 ± 0.3 ^p	17 ± 2.0	18 ± 0.0 ^p	19 ± 2.2 ^p	16 ± 1.3 ^p
10000.0	18 ± 4.6 ^p	13 ± 2.9 ^p	20 ± 1.8 ^p	13 ± 4.0 ^p	15 ± 3.5 ^p
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					82 ± 1.8
Positive Control ³	178 ± 9.6				
Positive Control ⁵					
Positive Control ⁷		738 ± 39.0			
Positive Control ⁶			262 ± 3.1	171 ± 14.3	

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	16 ± 1.0
100.0	16 ± 2.5
333.0	12 ± 0.3
1000.0	19 ± 2.2
3333.0	16 ± 0.7 ^P
10000.0	12 ± 2.0 ^P
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁵	217 ± 32.3
Positive Control ⁷	
Positive Control ⁶	

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Date Report Requested: 09/16/2018

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Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	21 ± 3.4	7 ± 2.1	7 ± 0.9	21 ± 2.4	10 ± 1.3
100.0	20 ± 5.7	10 ± 2.6	10 ± 0.9	16 ± 0.3	7 ± 2.1
333.0	12 ± 1.3 ^P	10 ± 0.9 ^P	12 ± 0.6	16 ± 3.1	10 ± 1.5
1000.0	18 ± 1.3 ^P	10 ± 0.6 ^P	14 ± 2.5 ^P	16 ± 1.5 ^P	14 ± 0.7 ^P
3333.0	12 ± 2.0 ^P	14 ± 1.5 ^P	13 ± 0.6 ^P	18 ± 1.0 ^P	11 ± 1.8 ^P
10000.0	5 ± 1.9 ^S	5 ± 1.7 ^S	8 ± 1.5 ^P	15 ± 3.8 ^P	6 ± 1.3 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴					322 ± 18.7
Positive Control ⁶			747 ± 19.7		
Positive Control ⁸				178 ± 10.3	
Positive Control ⁹		88 ± 4.7			
Positive Control ¹⁰	45 ± 7.3				

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Strain: TA1537

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	17 ± 3.3
100.0	17 ± 2.6
333.0	15 ± 2.0
1000.0	24 ± 1.9
3333.0	16 ± 0.7 ^P
10000.0	15 ± 1.8 ^P
Trial Summary	Negative
Positive Control ⁴	
Positive Control ⁶	
Positive Control ⁸	260 ± 18.5
Positive Control ⁹	
Positive Control ¹⁰	

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Date Report Requested: 09/16/2018

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Strain: TA1538

Dose (ug/Plate)	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control ¹	15 ± 0.9	26 ± 4.3	21 ± 2.6
100.0	15 ± 1.0	17 ± 2.6	25 ± 0.6
333.0	14 ± 0.7 ^P	26 ± 2.0 ^P	25 ± 1.3
1000.0	17 ± 1.5 ^P	29 ± 3.5 ^P	29 ± 2.5 ^P
3333.0	11 ± 0.9 ^P	30 ± 2.6 ^P	31 ± 4.5 ^P
10000.0	6 ± 0.3 ^S	25 ± 2.5 ^P	33 ± 2.0 ^P
Trial Summary	Negative	Negative	Negative
Positive Control ²			109 ± 13.1
Positive Control ⁵		172 ± 14.8	
Positive Control ¹¹	1064 ± 66.3		

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Test Type: Genetic Toxicology - Bacterial
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G06: Ames Summary Data

Test Compound: C.I. Pigment red 81

CAS Number: 12224-98-5

Date Report Requested: 09/16/2018

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Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	105 ± 4.5	68 ± 2.1	141 ± 6.1	153 ± 8.0	126 ± 3.6
100.0	97 ± 5.0	61 ± 1.5	125 ± 7.0	170 ± 7.1	113 ± 13.1
333.0	98 ± 0.3 ^P	67 ± 3.8	120 ± 11.3	166 ± 3.4	117 ± 12.0
1000.0	81 ± 1.7 ^P	72 ± 4.6	126 ± 6.7 ^P	157 ± 4.6 ^P	99 ± 9.0 ^P
3333.0	66 ± 3.0 ^P	56 ± 3.0	111 ± 0.9 ^P	115 ± 10.3 ^P	85 ± 7.8 ^P
10000.0	26 ± 25.0 ^S	29 ± 1.7 ^S	102 ± 5.9 ^P	48 ± 8.3 ^P	84 ± 7.2 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴					2041 ± 75.1
Positive Control ⁶			2933 ± 132.1		
Positive Control ⁸				573 ± 55.0	
Positive Control ¹⁰	437 ± 17.7				
Positive Control ¹²					
Positive Control ¹³		144 ± 10.8			

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Test Type: Genetic Toxicology - Bacterial
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G06: Ames Summary Data

Test Compound: C.I. Pigment red 81

CAS Number: 12224-98-5

Date Report Requested: 09/16/2018

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Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	130 ± 13.8
100.0	111 ± 2.5
333.0	118 ± 4.4
1000.0	153 ± 12.9
3333.0	128 ± 22.0 ^p
10000.0	124 ± 24.3 ^p
Trial Summary	Negative
Positive Control ⁴	
Positive Control ⁶	
Positive Control ⁸	580 ± 86.5
Positive Control ¹⁰	
Positive Control ¹²	
Positive Control ¹³	

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G06: Ames Summary Data

Test Compound: C.I. Pigment red 81

CAS Number: 12224-98-5

Date Report Requested: 09/16/2018

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	23 ± 3.6	19 ± 2.9	30 ± 1.7	30 ± 1.8	35 ± 1.5
100.0	22 ± 1.5	16 ± 1.5	31 ± 0.9	35 ± 5.9	45 ± 0.7
333.0	17 ± 2.5	21 ± 0.7 ^P	28 ± 4.4	30 ± 3.1	34 ± 4.3
1000.0	23 ± 4.2 ^P	17 ± 0.7 ^P	33 ± 0.7 ^P	39 ± 0.9 ^P	45 ± 1.3
3333.0	20 ± 3.5 ^P	17 ± 1.3 ^P	32 ± 1.7 ^P	37 ± 1.7 ^P	46 ± 4.3 ^P
10000.0	8 ± 1.0 ^P	8 ± 2.9 ^P	22 ± 5.0 ^P	38 ± 2.0 ^P	46 ± 6.7 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ¹⁴					
Positive Control ²				319 ± 24.0	
Positive Control ¹¹	321 ± 24.5	364 ± 21.3	737 ± 11.0		
Positive Control ⁵					447 ± 19.4

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Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	37 ± 6.5	29 ± 5.6	29 ± 1.8	36 ± 5.3
100.0	35 ± 3.8	23 ± 2.4	39 ± 2.6	37 ± 2.3
333.0	38 ± 2.2	35 ± 2.1	37 ± 3.5	37 ± 5.9
1000.0	50 ± 3.8 ^p	37 ± 1.2 ^p	45 ± 8.0	45 ± 4.0 ^p
3333.0	43 ± 4.4 ^p	36 ± 2.3 ^p	42 ± 3.8 ^p	41 ± 1.0 ^p
10000.0	51 ± 2.0 ^p	43 ± 1.2 ^p	47 ± 0.5 ^p	38 ± 3.2 ^p
Trial Summary	Negative	Negative	Equivocal	Negative
Positive Control ¹⁴	250 ± 24.3	836 ± 84.9		
Positive Control ²			198 ± 2.0	102 ± 7.2
Positive Control ¹¹				
Positive Control ⁵				

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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: Water

2: 0.4 ug/Plate 2-Aminoanthracene

3: 0.5 ug/Plate Sodium Azide

4: 0.75 ug/Plate 2-Aminoanthracene

5: 1.0 ug/Plate 2-Aminoanthracene

6: 2.0 ug/Plate 2-Aminoanthracene

7: 1.0 ug/Plate Sodium Azide

8: 2.5 ug/Plate 2-Aminoanthracene

9: 4.0 ug/Plate 9-Aminoacridine

10: 8.0 ug/Plate 9-Aminoacridine

11: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine

12: 16.0 ug/Plate 9-Aminoacridine

13: 24.0 ug/Plate 9-Aminoacridine

14: 0.2 ug/Plate 2-Aminoanthracene

p: Precipitate

s: Slight Toxicity

**** END OF REPORT ****