

Experiment Number: 255790

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: 5,5-Diphenylhydantoin (phenytoin)

CAS Number: 57-41-0

Date Report Requested: 09/11/2018

Time Report Requested: 02:22:36

NTP Study Number:

255790

Study Result:

Negative

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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	86 ± 3.3	110 ± 5.0	122 ± 13.9	94 ± 3.2	103 ± 5.7
100.0	94 ± 3.3	129 ± 6.6	118 ± 15.1	108 ± 2.4	104 ± 2.6
333.3	95 ± 4.8	135 ± 4.2	128 ± 10.3	105 ± 6.2	91 ± 0.9
1000.0	94 ± 9.8 ^P	136 ± 10.2 ^P	124 ± 5.8 ^P	103 ± 5.0 ^P	87 ± 8.0 ^P
3333.3	87 ± 3.6 ^P	149 ± 3.0 ^P	111 ± 8.1 ^P	105 ± 2.7 ^P	104 ± 4.6 ^P
10000.0	80 ± 2.0 ^P	136 ± 4.9 ^P	94 ± 3.2 ^P	108 ± 8.3 ^P	92 ± 6.4 ^P
Trial Summary	Negative	Equivocal	Negative	Negative	Negative
Positive Control ²	494 ± 7.3	457 ± 5.0			
Positive Control ³			1523 ± 14.2	765 ± 59.6	1859 ± 47.0

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Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	113 ± 2.1
100.0	99 ± 7.8
333.3	102 ± 2.1
1000.0	91 ± 3.8 ^P
3333.3	92 ± 9.5 ^P
10000.0	95 ± 5.2 ^P
Trial Summary	Negative
Positive Control ²	
Positive Control ³	1380 ± 36.4

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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	24 ± 4.8	36 ± 1.5	14 ± 1.9	17 ± 4.6	7 ± 0.9
100.0	22 ± 1.3	40 ± 2.4	15 ± 1.5	19 ± 3.7	15 ± 0.9
333.3	24 ± 7.4	48 ± 2.3	14 ± 2.1	17 ± 1.3	12 ± 2.3
1000.0	17 ± 2.2 ^P	37 ± 2.3 ^P	16 ± 2.3 ^P	16 ± 1.9 ^P	13 ± 3.5 ^P
3333.3	22 ± 1.5 ^P	48 ± 3.8 ^P	13 ± 1.9 ^P	18 ± 1.5 ^P	9 ± 2.0 ^P
10000.0	23 ± 2.8 ^P	52 ± 4.1 ^P	11 ± 2.2 ^P	14 ± 2.1 ^P	15 ± 0.6 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²	372 ± 12.7	376 ± 5.7			
Positive Control ⁴			251 ± 12.8	321 ± 44.2	430 ± 16.8

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Strain: TA1535

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	16 ± 1.5
100.0	12 ± 3.2
333.3	16 ± 1.5
1000.0	17 ± 1.3 ^P
3333.3	11 ± 2.7 ^P
10000.0	9 ± 1.5 ^P
Trial Summary	Negative
Positive Control ²	
Positive Control ⁴	306 ± 6.4

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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	12 ± 0.3	17 ± 1.5	23 ± 2.3	36 ± 3.7	18 ± 1.8
100.0	18 ± 1.5	33 ± 7.8	14 ± 2.2	18 ± 3.0	20 ± 3.5
333.3	14 ± 2.9	29 ± 0.3	17 ± 3.8	18 ± 5.2	18 ± 2.3
1000.0	10 ± 1.5 ^p	23 ± 1.7 ^p	13 ± 2.3 ^p	13 ± 1.8 ^p	13 ± 0.6 ^p
3333.3	8 ± 1.3 ^p	18 ± 1.0 ^p	11 ± 3.8 ^p	16 ± 1.2 ^p	11 ± 0.6 ^p
10000.0	8 ± 0.3 ^p	12 ± 1.5 ^p	10 ± 1.2 ^p	12 ± 2.7 ^p	13 ± 1.3 ^p
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴			413 ± 13.5	319 ± 28.4	59 ± 3.9
Positive Control ⁵	146 ± 28.6	308 ± 8.0			

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Strain: TA1537

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	40 ± 1.7
100.0	15 ± 1.8
333.3	23 ± 3.5
1000.0	13 ± 0.7 ^P
3333.3	12 ± 2.6 ^P
10000.0	5 ± 1.5 ^P
Trial Summary	Negative
Positive Control ⁴	635 ± 17.2
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	19 ± 4.4	37 ± 3.5	31 ± 4.1	47 ± 5.8	36 ± 3.0
100.0	20 ± 2.9	41 ± 4.0	34 ± 1.5	56 ± 4.9	34 ± 4.3
333.3	18 ± 0.9	44 ± 0.6	33 ± 1.5	39 ± 3.0	31 ± 7.2
1000.0	14 ± 1.5 ^P	40 ± 2.0 ^P	32 ± 1.3 ^P	46 ± 4.7 ^P	27 ± 4.0 ^P
3333.3	21 ± 2.8 ^P	42 ± 2.7 ^P	24 ± 3.4 ^P	48 ± 2.6 ^P	32 ± 3.5 ^P
10000.0	20 ± 2.3 ^P	37 ± 4.0 ^P	27 ± 2.3 ^P	58 ± 7.3 ^P	29 ± 1.3 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ³			1300 ± 32.9	509 ± 20.5	1723 ± 57.6
Positive Control ⁶	669 ± 20.2	850 ± 18.0			

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Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	50 ± 2.9
100.0	50 ± 1.5
333.3	61 ± 6.6
1000.0	54 ± 3.0 ^p
3333.3	40 ± 1.3 ^p
10000.0	51 ± 3.2 ^p
Trial Summary	Negative
Positive Control ³	1170 ± 9.5
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

p: Precipitate

**** END OF REPORT ****