

Experiment Number: 510395

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

G06: Ames Summary Data

Test Compound: 4-n-Hexyl-4'-cyanobiphenyl

CAS Number: 41122-70-7

Date Report Requested: 09/12/2018

Time Report Requested: 11:13:09

NTP Study Number:

510395

Study Result:

Negative

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Test Compound: 4-n-Hexyl-4'-cyanobiphenyl

CAS Number: 41122-70-7

Date Report Requested: 09/12/2018

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	84 ± 9.1	96 ± 3.5	106 ± 14.1	115 ± 2.6	85 ± 5.0
100.0	84 ± 4.4	98 ± 3.2	115 ± 4.3	132 ± 9.9	84 ± 6.6
333.0	89 ± 9.2	99 ± 10.0	85 ± 0.6	127 ± 9.6	79 ± 2.4
1000.0	88 ± 4.4	95 ± 2.0	92 ± 2.5	129 ± 5.6	79 ± 2.0
3333.0	87 ± 0.9 ^P	80 ± 5.2	88 ± 5.7	126 ± 9.4 ^P	77 ± 6.0
10000.0	70 ± 7.2 ^P	86 ± 4.1 ^P	85 ± 1.5 ^P	136 ± 3.8 ^P	76 ± 2.2 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					1628 ± 59.7
Positive Control ³	261 ± 11.9	483 ± 28.5			
Positive Control ⁴			403 ± 16.1		
Positive Control ⁵					
Positive Control ⁶				315 ± 4.9	

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Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	96 ± 3.8
100.0	117 ± 4.1
333.0	112 ± 6.0
1000.0	113 ± 5.0
3333.0	111 ± 16.1 ^p
10000.0	112 ± 12.3 ^p
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	
Positive Control ⁵	468 ± 23.2
Positive Control ⁶	

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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	20 ± 2.5	21 ± 3.6	11 ± 1.2	11 ± 2.0	22 ± 1.5
100.0	24 ± 0.9	12 ± 0.3	13 ± 1.5	12 ± 3.3	22 ± 2.6
333.0	15 ± 1.2	14 ± 2.5	10 ± 2.0	12 ± 2.6	25 ± 4.4
1000.0	15 ± 2.5	12 ± 2.3	9 ± 2.5	14 ± 0.3	19 ± 3.8
3333.0	13 ± 2.4	8 ± 1.5	10 ± 2.6	13 ± 2.7 ^p	20 ± 3.0
10000.0	10 ± 3.6 ^p	8 ± 2.3 ^p	9 ± 2.6 ^p	10 ± 0.6 ^p	20 ± 1.8 ^p
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					302 ± 25.1
Positive Control ³	218 ± 19.0	300 ± 6.2			
Positive Control ⁵					
Positive Control ⁶			192 ± 4.4	72 ± 5.8	

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Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	10 ± 0.9
100.0	8 ± 0.6
333.0	8 ± 0.5
1000.0	11 ± 0.9
3333.0	8 ± 0.0 ^p
10000.0	7 ± 1.5 ^p
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁵	45 ± 0.9
Positive Control ⁶	

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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	4 ± 0.0	5 ± 1.2	4 ± 2.0	7 ± 0.7	7 ± 0.7
100.0	5 ± 0.9	5 ± 0.9	7 ± 0.5	9 ± 1.7	5 ± 0.9
333.0	3 ± 0.6	6 ± 0.3	6 ± 0.3	5 ± 2.0	4 ± 1.2
1000.0	7 ± 2.4	4 ± 1.3	7 ± 3.0	7 ± 2.1	6 ± 1.5
3333.0	3 ± 1.5	4 ± 1.5 ^s	7 ± 1.3	5 ± 1.2 ^p	4 ± 1.2
10000.0	7 ± 1.7 ^p	7 ± 1.2 ^s	3 ± 1.0 ^p	4 ± 1.2 ^p	6 ± 2.5 ^p
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴					368 ± 28.5
Positive Control ⁶			152 ± 8.0		
Positive Control ⁷				34 ± 3.0	
Positive Control ⁸	30 ± 3.2	325 ± 19.0			

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Strain: TA1537

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	6 ± 1.5
100.0	7 ± 0.9
333.0	6 ± 0.7
1000.0	5 ± 1.2
3333.0	7 ± 1.8 ^p
10000.0	4 ± 2.0 ^p
Trial Summary	Negative
Positive Control ⁴	
Positive Control ⁶	
Positive Control ⁷	188 ± 19.6
Positive Control ⁸	

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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	82 ± 7.8	74 ± 10.1	154 ± 8.7	150 ± 13.9	123 ± 4.9
100.0	90 ± 3.3	85 ± 2.9	147 ± 20.2	139 ± 11.4	112 ± 1.5
333.0	96 ± 14.7	73 ± 4.1	135 ± 9.1	169 ± 9.1	107 ± 5.8
1000.0	106 ± 6.2	77 ± 5.4	143 ± 9.8	155 ± 5.5	114 ± 1.7
3333.0	85 ± 4.7	64 ± 3.2	124 ± 8.4	168 ± 8.1 ^P	104 ± 3.1
10000.0	94 ± 4.6 ^P	61 ± 5.5 ^P	134 ± 4.2 ^P	140 ± 7.3 ^P	108 ± 3.7 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴					1525 ± 7.5
Positive Control ⁶			879 ± 14.2		
Positive Control ⁷				330 ± 24.8	
Positive Control ⁹	207 ± 19.1	439 ± 135.6			

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CAS Number: 41122-70-7

Date Report Requested: 09/12/2018

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Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	125 ± 7.2
100.0	128 ± 9.7
333.0	116 ± 10.2
1000.0	128 ± 6.0
3333.0	122 ± 3.6 ^p
10000.0	124 ± 9.3 ^p
Trial Summary	Negative
Positive Control ⁴	
Positive Control ⁶	
Positive Control ⁷	449 ± 18.6
Positive Control ⁹	

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	15 ± 1.2	30 ± 3.4	43 ± 2.4	23 ± 1.2	40 ± 6.6
100.0	18 ± 1.2	22 ± 4.8	39 ± 1.8	23 ± 5.4	36 ± 0.3
333.0	16 ± 1.5	16 ± 1.5	44 ± 4.4	23 ± 2.3	39 ± 5.1
1000.0	17 ± 1.8	11 ± 3.2	38 ± 4.9	28 ± 1.5	41 ± 2.3
3333.0	9 ± 1.8 ^p	18 ± 0.9	39 ± 2.6	19 ± 1.2 ^p	36 ± 2.3
10000.0	13 ± 1.3 ^p	19 ± 3.8 ^p	37 ± 5.5 ^p	22 ± 1.2 ^p	32 ± 1.0 ^p
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ¹⁰					601 ± 18.6
Positive Control ²			254 ± 26.8		
Positive Control ¹¹	150 ± 7.3	292 ± 8.2			
Positive Control ⁵				74 ± 1.8	

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	29 ± 3.4
100.0	24 ± 2.8
333.0	26 ± 3.3
1000.0	27 ± 4.6
3333.0	23 ± 3.8 ^p
10000.0	27 ± 3.4 ^p
Trial Summary	Negative
Positive Control ¹⁰	
Positive Control ²	60 ± 9.6
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: Dimethyl Sulfoxide

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: 2.5 ug/Plate 2-Aminoanthracene

8: 4.0 ug/Plate 9-Aminoacridine

9: 8.0 ug/Plate 9-Aminoacridine

10: 0.2 ug/Plate 2-Aminoanthracene

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

p: Precipitate

s: Slight Toxicity

**** END OF REPORT ****