

Experiment Number: 567980

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

G06: Ames Summary Data

Test Compound: **Styrax balsam**

CAS Number: **8046-19-3**

Date Report Requested: **09/14/2018**

Time Report Requested: **04:25:22**

NTP Study Number:

567980

Study Result:

Negative

Experiment Number: 567980

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Mutagenicity

G06: Ames Summary Data

Test Compound: Styrax balsam

CAS Number: 8046-19-3

Date Report Requested: 09/14/2018

Time Report Requested: 04:25:22

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	135 ± 12.3	95 ± 6.0	111 ± 1.2	174 ± 11.2	153 ± 5.0
2.0	132 ± 19.7				
6.7	131 ± 2.7				
20.0	142 ± 6.7			178 ± 5.6	
33.0		91 ± 4.6	119 ± 9.0		
67.0	114 ± 9.4			181 ± 4.2	
100.0		101 ± 6.5	101 ± 4.9		
200.0	121 ± 9.4 ^P			181 ± 5.6 ^P	
333.0		86 ± 5.8 ^P	106 ± 3.8		152 ± 5.8
667.0				168 ± 6.0 ^P	
1000.0		86 ± 2.9 ^P	98 ± 3.4 ^P		152 ± 4.4
2000.0				188 ± 5.7 ^P	
3333.0		82 ± 3.5 ^P	91 ± 6.8 ^P		129 ± 4.1 ^P
6667.0					119 ± 4.3 ^P
10000.0					128 ± 8.0 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					502 ± 13.1
Positive Control ³	292 ± 9.2	379 ± 13.3			
Positive Control ⁴			1494 ± 46.8		
Positive Control ⁵					
Positive Control ⁶				1076 ± 17.5	

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CAS Number: 8046-19-3

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Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	110 ± 9.2	150 ± 8.2	146 ± 5.6	154 ± 8.1	172 ± 3.5
2.0					
6.7					
20.0			135 ± 13.8		
33.0	121 ± 5.2				
67.0			169 ± 6.4		
100.0	111 ± 5.4	133 ± 1.9		179 ± 2.8 ^p	
200.0			165 ± 6.8 ^p		
333.0	105 ± 1.5	137 ± 3.0		157 ± 9.0 ^p	187 ± 0.7
667.0			170 ± 9.2 ^p		
1000.0	107 ± 6.7	126 ± 6.2		197 ± 5.9 ^p	186 ± 3.3
2000.0			185 ± 7.0 ^p		
3333.0	105 ± 2.1	115 ± 1.3 ^p		234 ± 11.4 ^p	227 ± 8.2 ^p
6667.0					171 ± 13.6 ^p
10000.0		81 ± 4.3 ^p		174 ± 11.1 ^p	141 ± 12.5 ^p
Trial Summary	Negative	Negative	Equivocal	Equivocal	Negative
Positive Control ²	504 ± 22.5	546 ± 24.7			
Positive Control ³					
Positive Control ⁴					
Positive Control ⁵			553 ± 12.6	637 ± 22.6	750 ± 8.4
Positive Control ⁶					

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Test Compound: Styrax balsam

CAS Number: 8046-19-3

Date Report Requested: 09/14/2018

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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	13 ± 1.2	7 ± 1.0	9 ± 1.2	11 ± 1.2	6 ± 1.9
33.0	8 ± 1.5	11 ± 2.2	12 ± 2.3	11 ± 1.8	6 ± 1.5
100.0	7 ± 0.9	8 ± 1.5	7 ± 1.7	13 ± 0.9	11 ± 3.2
333.0	11 ± 0.9 ^P	9 ± 1.2 ^P	10 ± 2.4	10 ± 1.7	6 ± 3.2
1000.0	6 ± 0.9 ^P	8 ± 0.6 ^P	11 ± 1.2 ^P	14 ± 0.9 ^P	8 ± 0.7
3333.0	7 ± 1.2 ^P	8 ± 2.6 ^P	12 ± 0.9 ^P	9 ± 1.5 ^P	7 ± 0.0
10000.0					
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²					76 ± 4.0
Positive Control ³	167 ± 7.7	146 ± 13.8			
Positive Control ⁵					
Positive Control ⁶			183 ± 18.8	165 ± 11.4	

Experiment Number: 567980

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Styrax balsam

CAS Number: 8046-19-3

Date Report Requested: 09/14/2018

Time Report Requested: 04:25:22

Strain: TA1535

Dose (ug/Plate)	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	13 ± 1.2	13 ± 2.8
33.0		13 ± 1.0
100.0	12 ± 1.2	14 ± 0.7
333.0	11 ± 1.0	18 ± 1.0 ^P
1000.0	8 ± 0.6	12 ± 0.7 ^P
3333.0	11 ± 1.5 ^P	17 ± 1.2 ^P
10000.0	5 ± 1.0 ^P	
Trial Summary	Negative	Negative
Positive Control ²	35 ± 3.2	
Positive Control ³		
Positive Control ⁵		88 ± 7.5
Positive Control ⁶		

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G06: Ames Summary Data

Test Compound: Styrax balsam

CAS Number: 8046-19-3

Date Report Requested: 09/14/2018

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Strain: TA1538

Dose (ug/Plate)	Without S9	Without S9
Vehicle Control ⁷	6 ± 0.6	7 ± 0.7
10.0	6 ± 1.5	
33.0	8 ± 1.2	21 ± 2.7
50.0	11 ± 0.7	
100.0	8 ± 1.2	17 ± 4.2
333.0	10 ± 2.6	15 ± 4.6 ^p
1000.0		6 ± 2.1 ^p
3333.0		7 ± 1.2 ^p
Trial Summary	Negative	Equivocal
Positive Control ⁷	276 ± 28.9	351 ± 14.8

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Date Report Requested: 09/14/2018

Test Type: **Genetic Toxicology - Bacterial
Mutagenicity**Test Compound: **Styrax balsam**

Time Report Requested: 04:25:22

CAS Number: 8046-19-3

Strain: TA97

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	122 ± 5.9	146 ± 5.2	175 ± 7.0	128 ± 10.2	188 ± 11.1
33.0	125 ± 7.0	135 ± 5.5	173 ± 3.9	124 ± 6.5	222 ± 11.9
100.0	112 ± 7.8	117 ± 4.8	179 ± 5.4	114 ± 3.4	214 ± 4.8
333.0	104 ± 3.5 ^P	126 ± 5.5	148 ± 9.2	122 ± 4.9	211 ± 4.3
1000.0	113 ± 8.1 ^P	108 ± 6.2 ^P	146 ± 8.4 ^P	105 ± 6.5 ^P	225 ± 18.2 ^P
3333.0	92 ± 4.2 ^P	97 ± 4.1 ^P	138 ± 2.0 ^P	95 ± 0.7 ^P	187 ± 8.4 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴				1905 ± 60.0	
Positive Control ⁶		2324 ± 34.5	1408 ± 49.5		1590 ± 115.2
Positive Control ⁸	625 ± 32.8				

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Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Styrax balsam

CAS Number: 8046-19-3

Date Report Requested: 09/14/2018

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Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	Without S9	Without S9	Without S9
Vehicle Control ¹	14 ± 1.7	25 ± 2.0	29 ± 3.2	25 ± 3.8	12 ± 1.5
2.0	13 ± 1.5				
3.3		22 ± 1.9			
6.7	19 ± 2.2				
10.0		19 ± 1.2	25 ± 3.0		
20.0	17 ± 2.3				
33.0		23 ± 1.9 ^p	27 ± 3.8	22 ± 2.7	12 ± 1.5
50.0		38 ± 0.6 ^p	25 ± 1.7		
67.0	24 ± 1.2 ^p				
100.0		41 ± 2.6 ^p	22 ± 2.2	24 ± 2.1	10 ± 1.3
200.0	24 ± 0.3 ^p				
333.0			23 ± 4.4 ^p	18 ± 1.3 ^p	11 ± 1.0 ^p
667.0					
1000.0				19 ± 2.0 ^p	14 ± 2.3 ^p
2000.0					
3333.0				19 ± 4.7 ^p	14 ± 1.2 ^p
10000.0					
Trial Summary	Negative	Equivocal	Negative	Negative	Negative
Positive Control ²					
Positive Control ⁷	328 ± 1.5	379 ± 5.6	300 ± 9.5	351 ± 6.9	433 ± 8.7
Positive Control ⁵					

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Test Compound: Styrax balsam

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Strain: TA98

Dose (ug/Plate)	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	17 ± 3.5	20 ± 2.6	12 ± 2.3	35 ± 0.7	16 ± 1.2
2.0					
3.3					
6.7					
10.0					
20.0		20 ± 2.7			21 ± 2.4
33.0	17 ± 2.6		13 ± 2.6		
50.0					
67.0		24 ± 2.3			19 ± 0.3
100.0	21 ± 3.3		17 ± 2.3	38 ± 2.0	
200.0		25 ± 1.7 ^P			21 ± 1.7 ^P
333.0	17 ± 2.5		16 ± 0.3	41 ± 1.2	
667.0		24 ± 0.6 ^P			26 ± 5.3 ^P
1000.0	16 ± 2.0 ^P		17 ± 2.2	33 ± 6.2	
2000.0		18 ± 3.1 ^P			16 ± 4.4 ^P
3333.0	13 ± 0.7 ^P		18 ± 1.9	32 ± 2.1 ^P	
10000.0				19 ± 3.1 ^P	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²	408 ± 46.5		399 ± 8.2	563 ± 20.9	
Positive Control ⁷					
Positive Control ⁵		395 ± 13.1			390 ± 10.2

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	36 ± 1.9
2.0	
3.3	
6.7	
10.0	
20.0	
33.0	35 ± 3.9 ^p
50.0	
67.0	
100.0	23 ± 2.3 ^p
200.0	
333.0	27 ± 1.2 ^p
667.0	31 ± 1.5 ^p
1000.0	33 ± 1.2 ^p
2000.0	
3333.0	
10000.0	
Trial Summary	Negative
Positive Control ²	
Positive Control ⁷	
Positive Control ⁵	538 ± 22.0

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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: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine
- 8: 24.0 ug/Plate 9-Aminoacridine
- p: Precipitate

** END OF REPORT **