

Experiment Number: A22124

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: 5-(Hydroxymethyl)-2-furfural

CAS Number: 67-47-0

Date Report Requested: 09/16/2018

Time Report Requested: 10:24:29

NTP Study Number:

A22124

Study Result:

Weakly Positive

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Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	167 ± 21.6	193 ± 1.5	114 ± 1.5	97 ± 4.5	158 ± 19.6
100.0	179 ± 5.2	206 ± 14.7	112 ± 7.9	102 ± 5.7	158 ± 3.5
333.0	172 ± 11.2	225 ± 4.9	117 ± 9.0	101 ± 2.2	151 ± 4.3
1000.0	175 ± 5.7	215 ± 5.0	108 ± 4.7	99 ± 3.8	162 ± 5.8
3333.0	237 ± 3.3	236 ± 13.5	130 ± 2.0	95 ± 5.0	164 ± 15.5
10000.0	318 ± 12.6	265 ± 10.6	172 ± 0.6	114 ± 2.6	160 ± 9.3
Trial Summary	Weakly Positive	Weakly Positive	Weakly Positive	Negative	Negative
Positive Control ²					
Positive Control ³	509 ± 10.2	644 ± 38.6	409 ± 8.8		
Positive Control ⁴				309 ± 28.3	
Positive Control ⁵					
Positive Control ⁶					482 ± 21.2

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Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	87 ± 6.4	152 ± 10.8
100.0	92 ± 6.9	169 ± 8.5
333.0	91 ± 1.2	157 ± 12.2
1000.0	92 ± 6.0	159 ± 7.3
3333.0	95 ± 4.7	169 ± 8.5
10000.0	95 ± 7.4	148 ± 5.2
Trial Summary	Negative	Negative
Positive Control ²	222 ± 22.4	
Positive Control ³		
Positive Control ⁴		
Positive Control ⁵		703 ± 18.6
Positive Control ⁶		

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Strain: TA1535

Dose (ug/Plate)	Without S9
Vehicle Control ¹	11 ± 1.2
100.0	9 ± 0.6
333.0	11 ± 1.8
1000.0	11 ± 2.0
3333.0	10 ± 2.0
10000.0	5 ± 0.6
Trial Summary	Negative
Positive Control ³	142 ± 22.6

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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	112 ± 8.9	180 ± 5.8	201 ± 8.4	199 ± 10.3	176 ± 12.4
100.0	118 ± 9.8	221 ± 6.8	182 ± 13.0	207 ± 15.6	215 ± 12.2
333.0	103 ± 6.9	192 ± 9.2	209 ± 12.5	222 ± 2.3	170 ± 5.2
1000.0	101 ± 2.6	207 ± 3.8	169 ± 5.4	195 ± 10.4	195 ± 10.1
3333.0	99 ± 7.8	128 ± 8.1	179 ± 14.5	178 ± 8.7	128 ± 8.7
10000.0	97 ± 5.9	123 ± 0.9	109 ± 5.0	136 ± 7.2	138 ± 14.2
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴					435 ± 9.4
Positive Control ⁶			677 ± 10.8	415 ± 18.4	
Positive Control ⁷	345 ± 9.9	498 ± 36.7			

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Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	204 ± 17.3
100.0	170 ± 13.8
333.0	159 ± 9.6
1000.0	159 ± 9.7
3333.0	147 ± 7.5
10000.0	98 ± 9.3
Trial Summary	Negative
Positive Control ⁴	
Positive Control ⁶	546 ± 46.0
Positive Control ⁷	

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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 ± 1.9	19 ± 0.9	12 ± 0.9	25 ± 4.0	15 ± 2.6
100.0	16 ± 2.7	19 ± 2.5	17 ± 2.2	23 ± 1.9	20 ± 4.1
333.0	19 ± 2.8	27 ± 2.3	16 ± 3.2	27 ± 1.5	17 ± 0.6
1000.0	19 ± 1.7	15 ± 1.9	15 ± 3.2	18 ± 0.7	18 ± 2.6
3333.0	14 ± 2.6	18 ± 2.5	15 ± 1.5	19 ± 2.3	17 ± 3.2
10000.0	7 ± 2.0	15 ± 2.6	17 ± 0.9	17 ± 1.5	15 ± 0.3
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²			222 ± 17.7		403 ± 37.7
Positive Control ⁸	353 ± 10.2	251 ± 7.4			
Positive Control ⁵				188 ± 38.1	

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Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	25 ± 0.6
100.0	24 ± 3.8
333.0	20 ± 3.2
1000.0	23 ± 1.2
3333.0	21 ± 1.2
10000.0	20 ± 0.7
Trial Summary	Negative
Positive Control ²	
Positive Control ⁸	
Positive Control ⁵	457 ± 15.3

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Strain: TA102

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	372 ± 26.3	218 ± 1.5	398 ± 25.2	392 ± 10.7	307 ± 17.7
100.0	386 ± 16.7	215 ± 6.9	290 ± 18.9	400 ± 22.6	294 ± 12.2
333.0	391 ± 9.8	223 ± 7.4	365 ± 14.7	394 ± 13.6	279 ± 17.7
1000.0	395 ± 19.1	207 ± 5.7	351 ± 23.7	362 ± 34.9	301 ± 14.4
3333.0	365 ± 2.2	218 ± 16.6	361 ± 2.2	373 ± 30.9	237 ± 24.3
5000.0					
10000.0	415 ± 2.9	191 ± 8.4	361 ± 9.8	340 ± 7.5	172 ± 15.6
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁹				1266 ± 50.5	2358 ± 20.6
Positive Control ¹⁰			2416 ± 78.9		
Positive Control ¹¹	1030 ± 10.7	822 ± 48.8			

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Strain: TA102

Dose (ug/Plate)	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	394 ± 27.7	302 ± 25.7
100.0	412 ± 53.2	
333.0	455 ± 10.5	316 ± 6.3
1000.0	471 ± 7.3	300 ± 20.8
3333.0	483 ± 18.6	299 ± 9.2
5000.0		261 ± 26.0
10000.0	391 ± 14.1	237 ± 20.0
Trial Summary	Equivocal	Negative
Positive Control ⁹	1747 ± 28.2	1491 ± 60.1
Positive Control ¹⁰		
Positive Control ¹¹		

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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: 24.0 ug/Plate 9-Aminoacridine

8: 1.0 ug/Plate 4-Nitro-O-Phenylenediamine

9: 5.0 ug/Plate Sterigmatocystin

10: 10.0 ug/Plate Sterigmatocystin

11: 75.0 ug/Plate Solvent

**** END OF REPORT ****