

Experiment Number: 426651

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: p-Menthane-1,8-diamine

CAS Number: 80-52-4

Date Report Requested: 09/15/2018

Time Report Requested: 06:15:19

NTP Study Number:

426651

Study Result:

Negative

Experiment Number: 426651

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: p-Menthane-1,8-diamine

CAS Number: 80-52-4

Date Report Requested: 09/15/2018

Time Report Requested: 06:15:19

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control ¹	138 ± 13.9	103 ± 4.0	107 ± 11.3	117 ± 6.9	121 ± 7.0
10.0		110 ± 14.0			
33.0		109 ± 4.7	126 ± 1.2		110 ± 6.4
100.0	108 ± 3.5	119 ± 5.7	118 ± 10.6	118 ± 6.4	121 ± 14.5
333.0	109 ± 4.9	108 ± 5.5	105 ± 2.7	108 ± 4.1	114 ± 12.1
666.0		95 ± 2.5	104 ± 4.9		
1000.0	84 ± 2.7 ^s		73 ± 36.4 ^s	122 ± 15.9	137 ± 3.5
1666.0					134 ± 9.7
3333.0	47 ± 46.5 ^s			39 ± 38.7 ^s	
6666.0	Toxic			Toxic	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²				552 ± 14.0	572 ± 32.9
Positive Control ³	422 ± 16.6	281 ± 6.9	413 ± 2.7		

Experiment Number: 426651

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: p-Menthane-1,8-diamine

CAS Number: 80-52-4

Date Report Requested: 09/15/2018

Time Report Requested: 06:15:19

Strain: TA100

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	109 ± 7.8	138 ± 6.6	108 ± 5.4	98 ± 7.0
10.0			106 ± 8.6	116 ± 9.2
33.0			107 ± 3.1	109 ± 9.4
100.0	102 ± 5.9	104 ± 8.6	110 ± 8.5	99 ± 5.1
333.0	114 ± 8.1	102 ± 1.7	117 ± 4.7	115 ± 9.6
666.0				
1000.0	127 ± 16.4	108 ± 8.8	125 ± 2.9	115 ± 3.9
1666.0	142 ± 5.6			
3333.0	99 ± 19.7 ^s	107 ± 7.8		
6666.0		50 ± 25.6 ^s		
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ²	359 ± 4.2	1705 ± 35.5	1112 ± 18.2	1072 ± 24.5
Positive Control ³				

Experiment Number: 426651

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: p-Menthane-1,8-diamine

CAS Number: 80-52-4

Date Report Requested: 09/15/2018

Time Report Requested: 06:15:19

Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control ¹	34 ± 4.6	22 ± 2.0	26 ± 1.0	11 ± 2.3	11 ± 2.4
10.0		25 ± 2.5			
33.0		26 ± 1.5	35 ± 2.7		10 ± 3.8
100.0	20 ± 2.0	29 ± 4.6	30 ± 5.8	7 ± 1.3	6 ± 0.7
333.0	22 ± 4.3	25 ± 0.3	32 ± 3.7	8 ± 0.7	6 ± 0.9
666.0		19 ± 2.7	20 ± 4.4		
1000.0	11 ± 2.3		15 ± 3.5 ^s	6 ± 0.9	9 ± 2.4
1666.0					6 ± 0.6
3333.0	7 ± 3.2			4 ± 0.7	
6666.0	1 ± 1.0 ^s			6 ± 1.0	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ³	641 ± 17.5	295 ± 1.7	481 ± 11.8		
Positive Control ⁴				228 ± 5.7	129 ± 17.6

Experiment Number: 426651

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: p-Menthane-1,8-diamine

CAS Number: 80-52-4

Date Report Requested: 09/15/2018

Time Report Requested: 06:15:19

Strain: TA1535

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	10 ± 1.7	14 ± 3.2	10 ± 0.9	10 ± 1.2
10.0			11 ± 3.2	10 ± 3.7
33.0			13 ± 1.3	9 ± 1.8
100.0	8 ± 0.9	11 ± 1.7	12 ± 1.7	11 ± 1.5
333.0	7 ± 0.6	11 ± 3.2	7 ± 1.5	12 ± 2.3
666.0				
1000.0	10 ± 2.0	4 ± 0.3	7 ± 0.6	12 ± 1.5
1666.0	9 ± 1.7			
3333.0	8 ± 0.6 ^s	5 ± 2.6 ^s		
6666.0		0 ± 0.0 ^s		
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ³				
Positive Control ⁴	162 ± 11.0	518 ± 37.7	312 ± 11.7	416 ± 15.9

Experiment Number: 426651

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: p-Menthane-1,8-diamine

CAS Number: 80-52-4

Date Report Requested: 09/15/2018

Time Report Requested: 06:15:19

Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control ¹	5 ± 0.6	4 ± 1.0	4 ± 1.5	8 ± 2.0	6 ± 0.9
10.0		6 ± 2.8			
33.0		7 ± 2.9	7 ± 1.8		4 ± 1.3
100.0	6 ± 1.7	4 ± 0.6	3 ± 0.6	11 ± 1.9	7 ± 1.2
333.0	4 ± 1.2	4 ± 1.5	9 ± 1.3	7 ± 0.0	6 ± 1.2
666.0		4 ± 1.3	6 ± 2.3		
1000.0	2 ± 0.7		3 ± 0.7 ^s	7 ± 2.4	5 ± 1.5
1666.0					9 ± 1.7
3333.0	0 ± 0.0 ^s			5 ± 0.7	
6666.0	Toxic			5 ± 1.5	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ⁴				158 ± 3.8	146 ± 6.4
Positive Control ⁵	124 ± 31.9	329 ± 59.5	154 ± 8.4		

Experiment Number: 426651

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: p-Menthane-1,8-diamine

CAS Number: 80-52-4

Date Report Requested: 09/15/2018

Time Report Requested: 06:15:19

Strain: TA1537

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	6 ± 0.6	8 ± 2.3	8 ± 1.2	5 ± 0.3
10.0			7 ± 1.5	6 ± 1.7
33.0			4 ± 0.6	6 ± 1.2
100.0	7 ± 1.5	10 ± 1.7	9 ± 2.0	5 ± 0.9
333.0	4 ± 0.9	9 ± 1.7	7 ± 1.7	10 ± 1.5
666.0				
1000.0	7 ± 1.7	8 ± 0.7	8 ± 2.0	6 ± 0.6
1666.0	8 ± 2.7			
3333.0	5 ± 0.9 ^s	4 ± 1.8 ^s		
6666.0		1 ± 0.7 ^s		
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ⁴	111 ± 6.8	346 ± 18.3	335 ± 37.6	433 ± 16.1
Positive Control ⁵				

Experiment Number: 426651

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: p-Menthane-1,8-diamine

CAS Number: 80-52-4

Date Report Requested: 09/15/2018

Time Report Requested: 06:15:19

Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control ¹	21 ± 2.1	16 ± 0.3	16 ± 0.7	24 ± 3.2	24 ± 0.3
10.0		13 ± 2.7			
33.0		15 ± 2.2	17 ± 0.9		25 ± 4.6
100.0	13 ± 2.3	12 ± 2.0	17 ± 1.5	28 ± 2.5	26 ± 2.3
333.0	11 ± 3.0	11 ± 1.7	14 ± 3.2	28 ± 1.3	26 ± 5.5
666.0		11 ± 2.2	15 ± 1.2		
1000.0	5 ± 4.7 ^s		10 ± 3.0 ^s	22 ± 3.1	20 ± 0.3
1666.0					25 ± 2.9
3333.0	Toxic			16 ± 1.2 ^s	
6666.0	Toxic			0 ± 0.0 ^s	
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²				394 ± 30.8	446 ± 24.0
Positive Control ⁶	856 ± 51.2	472 ± 27.7	688 ± 18.1		

Experiment Number: 426651

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: p-Menthane-1,8-diamine

CAS Number: 80-52-4

Date Report Requested: 09/15/2018

Time Report Requested: 06:15:19

Strain: TA98

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control ¹	29 ± 1.0	37 ± 7.2	26 ± 4.0	23 ± 3.2
10.0			28 ± 1.9	20 ± 3.8
33.0			33 ± 2.7	25 ± 2.6
100.0	26 ± 0.9	25 ± 1.3	30 ± 3.8	23 ± 3.4
333.0	26 ± 5.6	30 ± 3.0	20 ± 3.6	25 ± 3.0
666.0				
1000.0	24 ± 6.2	33 ± 3.5	25 ± 3.2	27 ± 0.3
1666.0	32 ± 3.2			
3333.0	16 ± 0.7 ^s	17 ± 0.3		
6666.0		0 ± 0.0 ^s		
Trial Summary	Negative	Negative	Negative	Negative
Positive Control ²	333 ± 13.9	1517 ± 21.9	774 ± 37.1	1308 ± 39.0
Positive Control ⁶				

Experiment Number: 426651

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

G06: Ames Summary Data

Test Compound: **p-Menthane-1,8-diamine**

CAS Number: **80-52-4**

Date Report Requested: **09/15/2018**

Time Report Requested: **06:15:19**

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 2-Aminoanthracene

3: 1.0 ug/Plate Sodium Azide

4: 2.5 ug/Plate 2-Aminoanthracene

5: 50.0 ug/Plate 9-Aminoacridine

6: 5.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

**** END OF REPORT ****