Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

NTP Study Number: 094174

Study Result: Negative

Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	Without S9	Without S9	With 10% Rat S9
Vehicle Control[1]		75 ± 7.1	71 ± 0.3		
Vehicle Control[2]	140 ± 5.9			139 ± 5.9	163 ± 13.9
0.01		72 ± 4.0			
0.05		83 ± 4.4			
0.1		89 ± 1.7			
0.5		89 ± 8.1	62 ± 8.4		
1.0		109 ± 7.2	71 ± 4.1		
2.0			19 ± 14.5		
4.0			Toxic		
5.0					
100.0	134 ± 1.8			147 ± 7.2	141 ± 7.6
333.0	138 ± 15.9			126 ± 6.3	131 ± 9.6
1000.0	124 ± 7.2			122 ± 12.4	136 ± 5.6
3333.0	131 ± 8.7			130 ± 11.3	140 ± 11.7
10000.0	83 ± 21.1[s]			74 ± 11.0[s]	93 ± 20.3[s]
15000.0					
Trial Summary	Negative	Equivocal	Negative	Negative	Negative
Positive Control[3]					
Positive Control[4]					
Positive Control[5]		422 ± 14.1	551 ± 15.0		
Positive Control[6]					585 ± 32.7
Positive Control[7]	443 ± 10.6			295 ± 7.5	
Positive Control[8]					
Positive Control[9]					

Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

Strain: TA100

Dose (ug/Plate)	With 30% Rat S9	With 30% Rat S9	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control[1]		98 ± 3.8	77 ± 5.0		
Vehicle Control[2]	136 ± 13.3			150 ± 1.7	136 ± 10.8
0.01		120 ± 9.6			
0.05		120 ± 5.7			
0.1		135 ± 13.5			
0.5		123 ± 0.6	86 ± 3.8		
1.0		144 ± 3.9	89 ± 4.7		
2.0			80 ± 1.2		
4.0			0 ± 0.0[s]		
5.0					
100.0				141 ± 18.7	
333.0	162 ± 10.3			120 ± 5.5	155 ± 23.9
1000.0	153 ± 15.9			113 ± 9.9	153 ± 7.2
3333.0	160 ± 3.9			110 ± 3.3	140 ± 9.3
10000.0	150 ± 6.4			89 ± 8.3[s]	114 ± 7.5
15000.0	106 ± 5.1[s]				77 ± 9.7[s]
Trial Summary	Negative	Equivocal	Negative	Negative	Negative
Positive Control[3]				797 ± 27.7	
Positive Control[4]					
Positive Control[5]					
Positive Control[6]					728 ± 53.8
Positive Control[7]					
Positive Control[8]	703 ± 17.4				
Positive Control[9]		490 ± 16.5	556 ± 16.0		

Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control[1]	91 ± 12.5	81 ± 9.3
Vehicle Control[2]		
0.01	97 ± 2.7	
0.05	85 ± 4.9	
0.1	124 ± 21.6	
0.5	117 ± 14.7	90 ± 7.8
1.0	127 ± 7.1	110 ± 9.2
2.0		96 ± 6.2
4.0		16 ± 4.8[s]
5.0		
100.0		
333.0		
1000.0		
3333.0		
10000.0		
15000.0		
Trial Summary	Equivocal	Negative
Positive Control[3]		
Positive Control[4]	590 ± 15.9	1035 ± 8.6
Positive Control[5]		
Positive Control[6]		
Positive Control[7]		
Positive Control[8]		
Positive Control[9]		

Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control[2]	19 ± 2.0	17 ± 2.5	11 ± 0.6	11 ± 0.9	11 ± 1.9
100.0	19 ± 2.6	16 ± 2.0	17 ± 3.2	15 ± 0.7	10 ± 0.6
333.0	19 ± 3.8	16 ± 2.1	10 ± 1.9	12 ± 1.2	11 ± 2.3
1000.0	13 ± 2.1	11 ± 4.1	9 ± 1.5	13 ± 0.9	8 ± 0.6
3333.0	9 ± 3.7	9 ± 2.1	11 ± 1.2	13 ± 1.5	8 ± 2.3
10000.0	8 ± 4.9[s]	4 ± 1.2[s]	8 ± 2.0[s]	14 ± 2.6	9 ± 2.6
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[6]					222 ± 11.7
Positive Control[7]	286 ± 6.6	206 ± 5.6			
Positive Control[8]			132 ± 3.1		
Positive Control[10]				86 ± 3.8	

Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control[2]	14 ± 2.0
100.0	16 ± 3.7
333.0	10 ± 1.5
1000.0	12 ± 1.5
3333.0	11 ± 2.3
10000.0	10 ± 3.4
Trial Summary	Negative
Positive Control[6]	
Positive Control[7]	
Positive Control[8]	392 ± 59.3
Positive Control[10]	

Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control[2]	183 ± 7.1	190 ± 9.0	169 ± 22.5	209 ± 19.0	160 ± 13.0
100.0	183 ± 9.8	155 ± 5.5	216 ± 13.4	204 ± 21.4	175 ± 5.8
333.0	183 ± 8.5	175 ± 14.0	168 ± 12.7	201 ± 15.9	193 ± 13.4
1000.0	153 ± 27.3	174 ± 17.8	197 ± 7.8	228 ± 3.7	188 ± 11.2
3333.0	152 ± 18.9	171 ± 7.2	156 ± 20.7	217 ± 9.3	175 ± 15.6
10000.0	183 ± 33.9	212 ± 12.7	127 ± 7.5[s]	153 ± 20.8	171 ± 14.2
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[3]					505 ± 10.3
Positive Control[6]			346 ± 6.8		
Positive Control[8]				455 ± 13.9	
Positive Control[11]	545 ± 18.2	424 ± 2.0			

Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control[2]	168 ± 25.4	214 ± 7.7
100.0	246 ± 14.7	214 ± 3.2
333.0	249 ± 10.0	209 ± 9.3
1000.0	237 ± 8.4	189 ± 9.7
3333.0	225 ± 0.0	196 ± 3.5
10000.0	162 ± 7.1	195 ± 11.7
Trial Summary	Equivocal	Negative
Positive Control[3]		
Positive Control[6]	452 ± 37.0	511 ± 4.1
Positive Control[8]		
Positive Control[11]		

Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	Without S9	Without S9	With 10% Rat S9
Vehicle Control[1]		17 ± 3.5	8 ± 1.8		
Vehicle Control[2]	36 ± 3.9			21 ± 3.4	42 ± 2.3
0.01		14 ± 1.7			
0.05		15 ± 2.5			
0.1		20 ± 3.2			
0.5		18 ± 2.0	8 ± 3.0		
1.0		17 ± 1.8	15 ± 4.2		
2.0			11 ± 0.9[s]		
4.0			Toxic		
5.0					
100.0	34 ± 4.6			19 ± 1.9	36 ± 5.8
333.0	31 ± 2.5			20 ± 0.9	31 ± 1.2
1000.0	31 ± 4.2			20 ± 2.7	27 ± 4.2
3333.0	32 ± 3.4			20 ± 3.3	31 ± 3.0
10000.0	25 ± 7.1			7 ± 3.4[s]	20 ± 0.7[s]
15000.0					
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[3]					
Positive Control[4]					
Positive Control[6]					338 ± 7.0
Positive Control[12]	374 ± 15.0			530 ± 18.7	
Positive Control[13]		667 ± 85.0	615 ± 5.5		

Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

Strain: TA98

Dose (ug/Plate)	With 30% Rat S9	With 30% Rat S9	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control[1]		23 ± 0.5	19 ± 2.4		
Vehicle Control[2]	45 ± 1.5			39 ± 7.4	37 ± 3.4
0.01		16 ± 0.9			
0.05		21 ± 3.8			
0.1		18 ± 2.1			
0.5		19 ± 0.0	20 ± 2.0		
1.0		27 ± 4.1	28 ± 3.3		
2.0			18 ± 3.5		
4.0			0 ± 0.0		
5.0					
100.0				32 ± 0.9	
333.0	38 ± 1.7			35 ± 1.0	31 ± 3.8
1000.0	29 ± 1.7			32 ± 4.0	35 ± 5.4
3333.0	28 ± 1.0			25 ± 2.0	29 ± 1.7
10000.0	26 ± 1.5			25 ± 2.6	23 ± 1.5
15000.0	26 ± 3.2[s]				17 ± 0.6[s]
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[3]				585 ± 18.1	
Positive Control[4]		87 ± 12.4	193 ± 5.2		
Positive Control[6]	162 ± 1.2				318 ± 18.6
Positive Control[12]					
Positive Control[13]					

Experiment Number: **094174**

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

G06: Ames Summary Data

Test Compound: **2,3-Dimethylbutane**

CAS Number: **79-29-8**

Date Report Requested: **09/11/2018**

Time Report Requested: **07:26:52**

Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control[1]	26 ± 2.3	19 ± 2.8
Vehicle Control[2]		
0.01	26 ± 2.9	
0.05	29 ± 5.4	
0.1	41 ± 4.8	
0.5	32 ± 3.2	23 ± 4.7
1.0	34 ± 3.5	19 ± 1.9
2.0		25 ± 2.9
4.0		0 ± 0.0[s]
5.0		
100.0		
333.0		
1000.0		
3333.0		
10000.0		
15000.0		
Trial Summary	Negative	Negative
Positive Control[3]		
Positive Control[4]	274 ± 32.1	557 ± 18.5
Positive Control[6]		
Positive Control[12]		
Positive Control[13]		

LEGEND

Values given as Mean or Mean ± 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: 4-Nitro-o-Phenylenediamine
2: Vehicle Control: Dimethyl Sulfoxide
3: 0.5 ug/Plate 2-Aminoanthracene
4: 1.0 mL/Chamber 2-Aminoanthracene
5: 1.0 mL/Chamber Sodium Azide
6: 1.0 ug/Plate 2-Aminoanthracene
7: 1.0 ug/Plate Sodium Azide
8: 2.5 ug/Plate 2-Aminoanthracene
9: 2.5 mL/Chamber 2-Aminoanthracene
10: 5.0 ug/Plate 2-Aminoanthracene
11: 50.0 ug/Plate 9-Aminoacridine
12: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine
13: 2.5 mL/Chamber 4-Nitro-O-Phenylenediamine
s: Slight Toxicity

** END OF REPORT **