Experiment Number: **085245**

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

G06: Ames Summary Data

Test Compound: **Benzene**

CAS Number: **71-43-2**

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

Time Report Requested: **06:18:28**

NTP Study Number: 085245

Study Result: Negative

Experiment Number: **085245**

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

G06: Ames Summary Data

Test Compound: **Benzene**

CAS Number: **71-43-2**

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

Time Report Requested: **06:18:28**

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control[1]	91 ± 3.8	105 ± 10.5	95 ± 2.8	109 ± 6.0	89 ± 4.2
10.0	91 ± 5.9	74 ± 4.9	93 ± 8.7	105 ± 3.1	84 ± 5.8
33.0	93 ± 2.3	87 ± 4.9	88 ± 6.1	92 ± 7.3	76 ± 4.3
100.0	101 ± 13.9	100 ± 8.5	82 ± 4.3	97 ± 2.7	90 ± 8.1
333.0	90 ± 3.6	102 ± 2.6	87 ± 2.0	94 ± 4.6	82 ± 3.2
1000.0	82 ± 1.5[s]	100 ± 4.4[s]	99 ± 22.9[s]	92 ± 6.7	73 ± 3.8[s]
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[2]					938 ± 25.9
Positive Control[3]			2151 ± 63.2		
Positive Control[4]				533 ± 33.1	
Positive Control[5]	1187 ± 48.4	991 ± 19.8			

Experiment Number: **085245**

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

G06: Ames Summary Data

Test Compound: **Benzene**

CAS Number: **71-43-2**

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

Time Report Requested: **06:18:28**

Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control[1]	97 ± 4.1
10.0	103 ± 5.9
33.0	107 ± 12.4
100.0	101 ± 5.0
333.0	91 ± 6.8
1000.0	89 ± 4.0
Trial Summary	Negative
Positive Control[2]	
Positive Control[3]	
Positive Control[4]	1316 ± 49.4
Positive Control[5]	

Experiment Number: **085245**

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

G06: Ames Summary Data

Test Compound: **Benzene**

CAS Number: **71-43-2**

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

Time Report Requested: **06:18:28**

Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control[1]	23 ± 2.7	25 ± 3.2	16 ± 2.3	12 ± 2.4	10 ± 1.5
10.0	25 ± 0.3	19 ± 0.9	10 ± 0.9	10 ± 3.5	9 ± 1.2
33.0	20 ± 4.2	23 ± 3.8	10 ± 2.1	14 ± 0.9	11 ± 1.9
100.0	22 ± 1.0	22 ± 2.2	16 ± 0.7	13 ± 3.2	6 ± 1.2
333.0	20 ± 2.1	18 ± 2.1[s]	11 ± 2.1	11 ± 1.8	12 ± 1.3
1000.0	22 ± 3.1[s]	20 ± 0.6[s]	12 ± 1.2[s]	9 ± 1.2[s]	9 ± 0.3[s]
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[2]					106 ± 7.7
Positive Control[3]			149 ± 4.4		
Positive Control[4]				100 ± 6.4	
Positive Control[5]	994 ± 18.5	898 ± 25.9			

Experiment Number: **085245**

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

G06: Ames Summary Data

Test Compound: **Benzene**

CAS Number: **71-43-2**

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

Time Report Requested: **06:18:28**

Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control[1]	9 ± 0.3
10.0	9 ± 2.3
33.0	9 ± 1.3
100.0	11 ± 0.9
333.0	9 ± 1.8
1000.0	9 ± 1.7[s]
Trial Summary	Negative
Positive Control[2]	
Positive Control[3]	
Positive Control[4]	153 ± 16.7
Positive Control[5]	

Experiment Number: **085245**

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

G06: Ames Summary Data

Test Compound: **Benzene**

CAS Number: **71-43-2**

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

Time Report Requested: **06:18:28**

Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control[1]	59 ± 4.7	102 ± 7.5	127 ± 6.7	138 ± 19.6	81 ± 3.8
10.0	47 ± 2.6	104 ± 4.9	130 ± 6.4	173 ± 10.2	82 ± 8.8
33.0	42 ± 1.8	78 ± 9.7	136 ± 11.6	176 ± 4.4	98 ± 6.6
100.0	29 ± 5.4	97 ± 1.2	148 ± 6.8	181 ± 8.2	74 ± 7.8
333.0	32 ± 8.2	87 ± 4.5	134 ± 6.9	190 ± 3.3	50 ± 8.3
1000.0	67 ± 4.4[s]	92 ± 3.2[s]	117 ± 6.2[s]	159 ± 4.5[s]	87 ± 3.2
Trial Summary	Negative	Negative	Negative	Equivocal	Negative
Positive Control[2]					880 ± 16.0
Positive Control[3]			1167 ± 16.7		
Positive Control[4]				361 ± 18.8	
Positive Control[6]	246 ± 8.5	513 ± 44.0			

Experiment Number: **085245**

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

G06: Ames Summary Data

Test Compound: **Benzene**

CAS Number: **71-43-2**

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

Time Report Requested: **06:18:28**

Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control[1]	140 ± 5.6
10.0	129 ± 14.3
33.0	117 ± 6.2
100.0	125 ± 5.0
333.0	114 ± 5.0[s]
1000.0	122 ± 4.2[s]
Trial Summary	Negative
Positive Control[2]	
Positive Control[3]	
Positive Control[4]	725 ± 28.8
Positive Control[6]	

Experiment Number: **085245**

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

G06: Ames Summary Data

Test Compound: **Benzene**

CAS Number: **71-43-2**

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

Time Report Requested: **06:18:28**

Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control[1]	17 ± 1.2	17 ± 1.5	27 ± 3.4	29 ± 1.5	27 ± 1.8
10.0	16 ± 2.0	15 ± 2.7	28 ± 3.7	28 ± 1.2	35 ± 2.7
33.0	13 ± 0.9	16 ± 1.2	32 ± 4.2	27 ± 3.5	31 ± 3.0
100.0	14 ± 0.9	16 ± 1.3	30 ± 2.7	30 ± 1.7	38 ± 4.9
333.0	16 ± 0.9	16 ± 2.3	24 ± 5.0	30 ± 1.7	32 ± 2.5
1000.0	16 ± 2.9[s]	16 ± 2.3	26 ± 0.6[s]	25 ± 1.7	29 ± 1.7[s]
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[2]					760 ± 23.6
Positive Control[3]			1579 ± 31.2		
Positive Control[4]				391 ± 17.6	
Positive Control[7]	1719 ± 263.7	1174 ± 8.6			

Experiment Number: **085245**

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

G06: Ames Summary Data

Test Compound: **Benzene**

CAS Number: **71-43-2**

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

Time Report Requested: **06:18:28**

Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control[1]	30 ± 1.2
10.0	30 ± 3.0
33.0	30 ± 5.0
100.0	24 ± 1.5
333.0	26 ± 2.4
1000.0	33 ± 2.7
Trial Summary	Negative
Positive Control[2]	
Positive Control[3]	
Positive Control[4]	1420 ± 110.9
Positive Control[7]	

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: Dimethyl Sulfoxide
2: 0.75 ug/Plate 2-Aminoanthracene
3: 1.5 ug/Plate 2-Aminoanthracene
4: 2.0 ug/Plate 2-Aminoanthracene
5: 2.5 ug/Plate Sodium Azide
6: 4.0 ug/Plate 9-Aminoacridine
7: 12.0 ug/Plate 4-Nitro-O-Phenylenediamine
s: Slight Toxicity

** END OF REPORT **