Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

NTP Study Number: 077744

Study Result: Negative

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control[1]	115 ± 14.7	153 ± 16.5	147 ± 9.8	153 ± 2.0	159 ± 5.3
100.0	124 ± 9.9	130 ± 20.8	151 ± 4.2	159 ± 9.6	152 ± 7.5
333.0	131 ± 6.7	163 ± 24.6	161 ± 12.2	157 ± 9.5	156 ± 10.8
1000.0	115 ± 9.9	114 ± 7.7	146 ± 9.5	138 ± 3.7	128 ± 6.4
3333.0	111 ± 4.8	146 ± 11.3	131 ± 4.1	129 ± 3.3	138 ± 10.2
4000.0	123 ± 1.7[p]	154 ± 4.9[p]	131 ± 3.4[p]	141 ± 4.6[p]	171 ± 2.4[p]
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[2]					678 ± 44.7
Positive Control[3]	577 ± 18.9	443 ± 26.7			
Positive Control[4]			1008 ± 45.7		
Positive Control[5]					
Positive Control[6]				1125 ± 16.8	

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control[1]	143 ± 3.2
100.0	145 ± 15.1
333.0	137 ± 5.5
1000.0	126 ± 11.3
3333.0	117 ± 4.5
4000.0	123 ± 0.9[p]
Trial Summary	Negative
Positive Control[2]	
Positive Control[3]	
Positive Control[4]	
Positive Control[5]	737 ± 8.2
Positive Control[6]	

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

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 ± 0.3	11 ± 1.2	13 ± 1.5	13 ± 2.2	10 ± 1.2
100.0	7 ± 1.2	13 ± 2.3	15 ± 1.2	16 ± 2.0	11 ± 0.9
333.0	10 ± 2.7	12 ± 1.2	10 ± 3.2	14 ± 1.9	14 ± 2.1
1000.0	6 ± 2.0	11 ± 1.5	9 ± 1.2	16 ± 0.9	8 ± 0.6
3333.0	9 ± 0.3	9 ± 1.2	10 ± 1.5	15 ± 0.6	11 ± 0.9
4000.0	10 ± 3.2[p]	7 ± 0.9[p]	10 ± 2.0[p]	8 ± 1.5[p]	10 ± 2.6[p]
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[2]					75 ± 27.2
Positive Control[3]	298 ± 22.4	276 ± 8.0			
Positive Control[5]					
Positive Control[6]			253 ± 22.1	119 ± 8.7	

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

Strain: TA1535

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control[1]	16 ± 3.2
100.0	11 ± 2.3
333.0	12 ± 2.3
1000.0	8 ± 0.9
3333.0	7 ± 1.9
4000.0	10 ± 0.9[p]
Trial Summary	Negative
Positive Control[2]	
Positive Control[3]	
Positive Control[5]	109 ± 7.5
Positive Control[6]	

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control[1]	157 ± 9.0	142 ± 10.3	153 ± 8.1	168 ± 15.5	156 ± 5.5
100.0	137 ± 6.4	149 ± 5.3	154 ± 11.8	172 ± 4.8	159 ± 8.2
333.0	140 ± 7.0	147 ± 12.3	158 ± 6.7	158 ± 12.5	169 ± 5.5
1000.0	123 ± 7.9	149 ± 7.1	149 ± 7.4	174 ± 12.2	160 ± 4.4
3333.0	144 ± 8.7	126 ± 11.9	154 ± 2.2	168 ± 10.9	143 ± 2.8
4000.0	171 ± 7.9[p]	185 ± 1.8[p]	137 ± 7.8[p]	198 ± 3.3[p]	145 ± 4.4[p]
Trial Summary	Negative	Equivocal	Negative	Negative	Negative
Positive Control[4]					1378 ± 76.8
Positive Control[6]			1946 ± 64.0	713 ± 78.8	
Positive Control[7]	1746 ± 68.5	542 ± 36.0			

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

Strain: TA97

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control[1]	158 ± 3.6
100.0	158 ± 12.9
333.0	174 ± 15.1
1000.0	149 ± 6.5
3333.0	148 ± 6.7
4000.0	167 ± 13.6[p]
Trial Summary	Negative
Positive Control[4]	
Positive Control[6]	1539 ± 128.8
Positive Control[7]	

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control[1]	24 ± 0.6	22 ± 4.4	20 ± 0.5	35 ± 4.3	21 ± 2.4
100.0	20 ± 3.5	18 ± 1.2	17 ± 2.4	33 ± 0.3	16 ± 1.3
333.0	21 ± 2.5	18 ± 6.5	18 ± 2.6	22 ± 2.0	18 ± 4.8
1000.0	20 ± 1.3	17 ± 1.7	18 ± 1.2	30 ± 5.8	19 ± 3.1
3333.0	24 ± 2.5	20 ± 5.2	18 ± 3.0	29 ± 2.2	22 ± 1.7
4000.0	16 ± 1.5[p]	19 ± 0.3[p]	19 ± 1.5[p]	22 ± 1.9[p]	20 ± 2.3[p]
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control[2]			667 ± 37.4		651 ± 37.6
Positive Control[8]	267 ± 12.6	310 ± 27.3			
Positive Control[5]				534 ± 13.9	

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control[1]	24 ± 0.5
100.0	22 ± 3.1
333.0	16 ± 3.2
1000.0	23 ± 1.2
3333.0	19 ± 4.1
4000.0	24 ± 1.2[p]
Trial Summary	Negative
Positive Control[2]	
Positive Control[8]	
Positive Control[5]	606 ± 79.5

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

Strain: TA102

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control[1]	297 ± 12.7	332 ± 7.5	380 ± 0.9	446 ± 63.8	374 ± 3.5
100.0	297 ± 5.2	360 ± 15.1	419 ± 7.9	427 ± 4.1	384 ± 9.4
333.0	302 ± 14.3	328 ± 13.5	424 ± 4.6	489 ± 18.8	425 ± 12.7
1000.0	314 ± 2.6	365 ± 7.3	456 ± 14.0	478 ± 38.3	431 ± 7.1
3333.0	462 ± 41.9[p]	368 ± 3.8	464 ± 15.7	489 ± 6.7	472 ± 26.5
4000.0	604 ± 89.2[p]	370 ± 21.5[p]	500 ± 39.6[p]	495 ± 28.8[p]	578 ± 82.3[p]
Trial Summary	Positive	Negative	Equivocal	Negative	Equivocal
Positive Control[9]			1966 ± 36.4	2670 ± 41.7	2484 ± 92.4
Positive Control[10]	1088 ± 54.0	1429 ± 73.7			

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

Strain: TA102

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control[1]	435 ± 12.0
100.0	418 ± 11.8
333.0	394 ± 35.3
1000.0	417 ± 6.0
3333.0	414 ± 11.9
4000.0	478 ± 16.5[p]
Trial Summary	Negative
Positive Control[9]	2155 ± 176.8
Positive Control[10]	

Experiment Number: **077744**

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

G06: Ames Summary Data

Test Compound: **Ferrocene**

CAS Number: **102-54-5**

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

Time Report Requested: **00:52:32**

Strain: TA104

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control[1]	254 ± 8.8	387 ± 13.9	384 ± 7.1	382 ± 10.2	322 ± 3.7
100.0	219 ± 11.8	374 ± 9.8	382 ± 4.7	320 ± 10.1	255 ± 5.2
333.0	225 ± 8.9	348 ± 11.8	323 ± 9.2	304 ± 11.7	250 ± 13.9
1000.0	217 ± 2.2	355 ± 7.1	322 ± 3.6	312 ± 6.6	230 ± 14.8
3333.0	211 ± 7.9	316 ± 5.9	344 ± 18.8	304 ± 15.2	256 ± 12.7
4000.0	353 ± 44.6[p]	466 ± 34.9[p]	359 ± 19.0[p]	326 ± 17.0[p]	332 ± 36.7[p]
Trial Summary	Equivocal	Negative	Negative	Negative	Negative
Positive Control[11]		2124 ± 35.6	1949 ± 88.6	2309 ± 52.3	2263 ± 26.5
Positive Control[12]	2542 ± 69.5				

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: Acetone
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: 10.0 ug/Plate Sterigmatocystin
10: 75.0 ug/Plate Other Positive Control
11: 4.0 ug/Plate 2-Aminoanthracene
12: 75.0 ug/Plate Methyl Methane Sulfonate
p: Precipitate

** END OF REPORT **