

Experiment Number: 692173

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

G06: Ames Summary Data

Test Compound: **Choline chloride**

CAS Number: **67-48-1**

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

Time Report Requested: **17:39:13**

NTP Study Number:

692173

Study Result:

Negative

Experiment Number: 692173

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Choline chloride

CAS Number: 67-48-1

Date Report Requested: 09/11/2018

Time Report Requested: 17:39:13

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	111 ± 9.8	132 ± 12.1	170 ± 14.7	183 ± 12.8	135 ± 5.5
333.0	101 ± 5.0	170 ± 14.6	167 ± 8.4	203 ± 5.8	144 ± 3.5
1000.0	100 ± 4.5	160 ± 10.7	144 ± 4.6	199 ± 16.2	116 ± 5.9
3333.0	114 ± 5.1	174 ± 6.4	129 ± 9.3	204 ± 17.1	143 ± 5.7
10000.0	109 ± 5.1	175 ± 11.0	129 ± 6.2	193 ± 14.6	151 ± 4.9
20830.0	124 ± 7.8	185 ± 9.5	151 ± 6.4	203 ± 6.7	142 ± 10.0
Trial Summary	Negative	Equivocal	Negative	Negative	Negative
Positive Control ²			2085 ± 25.6	2551 ± 47.3	1009 ± 29.4
Positive Control ³	379 ± 15.2	471 ± 7.8			

Experiment Number: 692173

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Choline chloride

CAS Number: 67-48-1

Date Report Requested: 09/11/2018

Time Report Requested: 17:39:13

Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	182 ± 25.6
333.0	195 ± 4.1
1000.0	192 ± 11.5
3333.0	208 ± 7.9
10000.0	208 ± 20.6
20830.0	201 ± 11.8
Trial Summary	Negative
Positive Control ²	2132 ± 23.0
Positive Control ³	

Experiment Number: 692173

Test Type: Genetic Toxicology - Bacterial
Mutagenicity**G06: Ames Summary Data**

Test Compound: Choline chloride

CAS Number: 67-48-1

Date Report Requested: 09/11/2018

Time Report Requested: 17:39:13

Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	4 ± 0.6	6 ± 1.5	7 ± 1.5	10 ± 1.8	6 ± 1.3
333.0	4 ± 0.6	9 ± 1.7	4 ± 0.3	7 ± 0.6	9 ± 1.8
1000.0	5 ± 0.3	10 ± 2.1	5 ± 1.5	8 ± 0.9	10 ± 0.6
3333.0	3 ± 0.3	5 ± 0.9	4 ± 0.3	5 ± 1.5	9 ± 0.6
10000.0	4 ± 0.6	9 ± 2.8	8 ± 0.0	8 ± 1.9	8 ± 2.3
20830.0	7 ± 0.9	9 ± 0.6	6 ± 0.3	9 ± 0.9	9 ± 2.1
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²			68 ± 5.2	111 ± 6.0	140 ± 7.7
Positive Control ³	216 ± 51.1	450 ± 7.6			

Experiment Number: 692173
Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data
Test Compound: Choline chloride
CAS Number: 67-48-1

Date Report Requested: 09/11/2018
Time Report Requested: 17:39:13

Strain: TA1535

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	11 ± 2.9
333.0	12 ± 2.4
1000.0	12 ± 3.5
3333.0	11 ± 3.5
10000.0	9 ± 3.2
20830.0	12 ± 2.6
Trial Summary	Negative
Positive Control ²	121 ± 6.8
Positive Control ³	

Experiment Number: 692173

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Choline chloride

CAS Number: 67-48-1

Date Report Requested: 09/11/2018

Time Report Requested: 17:39:13

Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	5 ± 0.3	7 ± 1.2	5 ± 1.5	9 ± 2.3	7 ± 1.0
333.0	4 ± 1.5	7 ± 1.2	6 ± 0.5	7 ± 2.0	8 ± 0.5
1000.0	3 ± 0.3	3 ± 0.3	4 ± 1.0	10 ± 1.5	4 ± 0.3
3333.0	1 ± 0.3	3 ± 1.2	6 ± 0.7	10 ± 1.2	8 ± 0.6
10000.0	3 ± 0.3	4 ± 0.3	5 ± 0.3	11 ± 1.9	6 ± 0.3
20830.0	1 ± 0.3	5 ± 1.9	8 ± 1.9	12 ± 1.5	3 ± 0.9
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²			135 ± 15.5	122 ± 9.9	68 ± 3.5
Positive Control ⁴	1704 ± 82.3	1315 ± 109.8			

Experiment Number: 692173
Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data
Test Compound: Choline chloride
CAS Number: 67-48-1

Date Report Requested: 09/11/2018
Time Report Requested: 17:39:13

Strain: TA1537

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	7 ± 0.3
333.0	8 ± 0.6
1000.0	8 ± 2.7
3333.0	7 ± 1.0
10000.0	9 ± 1.5
20830.0	6 ± 1.8
Trial Summary	Negative
Positive Control ²	178 ± 19.0
Positive Control ⁴	

Experiment Number: 692173

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Choline chloride

CAS Number: 67-48-1

Date Report Requested: 09/11/2018

Time Report Requested: 17:39:13

Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	16 ± 0.9	10 ± 3.2	26 ± 4.2	23 ± 1.5	23 ± 1.2
333.0	9 ± 1.2	17 ± 5.2	21 ± 0.9	24 ± 2.2	19 ± 2.0
1000.0	13 ± 0.7	14 ± 3.5	27 ± 4.2	24 ± 4.0	29 ± 0.3
3333.0	15 ± 2.3	15 ± 2.6	21 ± 0.9	22 ± 0.6	18 ± 1.5
10000.0	9 ± 0.3	14 ± 1.5	28 ± 0.9	25 ± 4.4	17 ± 0.6
20830.0	14 ± 0.3	17 ± 3.2	27 ± 1.5	25 ± 2.7	21 ± 0.6
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²			719 ± 131.9	2089 ± 207.8	612 ± 9.0
Positive Control ⁵	460 ± 22.8	479 ± 22.8			

Experiment Number: 692173

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: Choline chloride

CAS Number: 67-48-1

Date Report Requested: 09/11/2018

Time Report Requested: 17:39:13

Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9
Vehicle Control ¹	25 ± 2.4
333.0	17 ± 2.1
1000.0	31 ± 1.7
3333.0	22 ± 4.0
10000.0	20 ± 3.4
20830.0	24 ± 2.7
Trial Summary	Negative
Positive Control ²	2269 ± 106.2
Positive Control ⁵	

Experiment Number: 692173

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

G06: Ames Summary Data

Test Compound: **Choline chloride**

CAS Number: **67-48-1**

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

Time Report Requested: **17:39:13**

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: 1.0 ug/Plate 2-Aminoanthracene

3: 3.3 ug/Plate Sodium Azide

4: 33.0 ug/Plate 9-Aminoacridine

5: 3.3 ug/Plate 4-Nitro-O-Phenylenediamine

**** END OF REPORT ****