

Experiment Number: A07612

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: All-trans-retinyl palmitate

CAS Number: 79-81-2

Date Report Requested: 09/15/2018

Time Report Requested: 16:09:15

NTP Study Number:

A07612

Study Result:

Equivocal

Experiment Number: A07612

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: All-trans-retinyl palmitate
CAS Number: 79-81-2

Date Report Requested: 09/15/2018

Time Report Requested: 16:09:15

Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	99 ± 9.6	101 ± 4.6	107 ± 2.5	106 ± 3.0	108 ± 7.0
100.0	86 ± 2.9	109 ± 10.7	102 ± 0.9	105 ± 9.8	111 ± 4.0
333.0	94 ± 7.0	110 ± 2.7	114 ± 7.0	104 ± 5.9	98 ± 3.0
1000.0	102 ± 13.5 ^P	119 ± 4.7 ^P	112 ± 5.0 ^P	91 ± 8.2 ^P	116 ± 0.9 ^P
3333.0	97 ± 3.8 ^P	120 ± 10.4 ^P	121 ± 3.0 ^P	114 ± 3.9 ^P	125 ± 5.8 ^P
10000.0	85 ± 7.8 ^P	128 ± 17.3 ^P	134 ± 11.6 ^P	100 ± 1.5 ^P	124 ± 6.4 ^P
Trial Summary	Equivocal	Negative	Negative	Negative	Negative
Positive Control ²					716 ± 48.8
Positive Control ³	623 ± 27.5	631 ± 11.3			
Positive Control ⁴			1527 ± 78.5		
Positive Control ⁵					
Positive Control ⁶				618 ± 42.9	

Experiment Number: A07612

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: All-trans-retinyl palmitate

CAS Number: 79-81-2

Date Report Requested: 09/15/2018

Time Report Requested: 16:09:15

Strain: TA100

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	108 ± 3.2
100.0	104 ± 3.0
333.0	118 ± 9.2
1000.0	89 ± 5.8 ^p
3333.0	104 ± 0.3 ^p
10000.0	96 ± 3.2 ^p
Trial Summary	Negative
Positive Control ²	
Positive Control ³	
Positive Control ⁴	
Positive Control ⁵	863 ± 34.4
Positive Control ⁶	

Experiment Number: A07612

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: All-trans-retinyl palmitate

CAS Number: 79-81-2

Date Report Requested: 09/15/2018

Time Report Requested: 16:09:15

Strain: TA1535

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	19 ± 1.3	18 ± 2.3	11 ± 1.5	13 ± 1.9	16 ± 1.2
100.0	18 ± 2.8	17 ± 1.3	14 ± 1.5	17 ± 2.6	20 ± 1.2
333.0	15 ± 0.7	13 ± 2.3	13 ± 2.6	15 ± 1.0	16 ± 2.5
1000.0	19 ± 0.7 ^P	15 ± 1.5 ^P	13 ± 0.9 ^P	17 ± 1.2 ^P	14 ± 1.7 ^P
3333.0	16 ± 3.1 ^P	17 ± 0.9 ^P	22 ± 0.9 ^P	21 ± 0.6 ^P	17 ± 2.1 ^P
10000.0	21 ± 1.9 ^P	22 ± 1.2 ^P	26 ± 2.0 ^P	22 ± 1.5 ^P	16 ± 1.5 ^P
Trial Summary	Negative	Negative	Weakly Positive	Negative	Negative
Positive Control ²					
Positive Control ³	164 ± 4.1	252 ± 77.1			
Positive Control ⁵					
Positive Control ⁶			317 ± 17.2	181 ± 10.0	246 ± 33.0

Experiment Number: A07612

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: All-trans-retinyl palmitate

CAS Number: 79-81-2

Date Report Requested: 09/15/2018

Time Report Requested: 16:09:15

Strain: TA1535

Dose (ug/Plate)	With 10% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	14 ± 4.0	16 ± 0.9
100.0	11 ± 2.2	21 ± 0.7
333.0	14 ± 1.2	13 ± 1.2
1000.0	16 ± 1.3 ^p	15 ± 1.0 ^p
3333.0	18 ± 0.7 ^p	15 ± 1.9 ^p
10000.0	23 ± 0.6 ^p	12 ± 0.3 ^p
Trial Summary	Negative	Negative
Positive Control ²	326 ± 26.8	
Positive Control ³		
Positive Control ⁵		224 ± 44.3
Positive Control ⁶		

Experiment Number: A07612

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: All-trans-retinyl palmitate

CAS Number: 79-81-2

Date Report Requested: 09/15/2018

Time Report Requested: 16:09:15

Strain: TA1537

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9
Vehicle Control ¹	5 ± 1.2	4 ± 0.7
100.0	4 ± 1.2	3 ± 0.9
333.0	4 ± 0.3	5 ± 1.2
1000.0	5 ± 1.5 ^P	3 ± 0.3 ^P
3333.0	10 ± 1.5 ^P	6 ± 1.2 ^P
10000.0	9 ± 0.9 ^P	7 ± 0.6 ^P
Trial Summary	Negative	Negative
Positive Control ⁶	901 ± 92.4	1413 ± 55.1

Experiment Number: A07612

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: All-trans-retinyl palmitate
CAS Number: 79-81-2

Date Report Requested: 09/15/2018

Time Report Requested: 16:09:15

Strain: TA97

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 30% Rat S9
Vehicle Control ¹	169 ± 8.5	86 ± 1.7	90 ± 2.9	95 ± 2.0	167 ± 22.2
100.0	111 ± 3.3	86 ± 2.5	93 ± 5.5	94 ± 1.2	114 ± 16.0
333.0	117 ± 12.5	87 ± 2.9	96 ± 3.5	100 ± 3.2	128 ± 14.3
1000.0	166 ± 3.5 ^P	96 ± 5.6 ^P	110 ± 5.5 ^P	117 ± 4.1 ^P	90 ± 12.2 ^P
3333.0	149 ± 12.4 ^P	104 ± 3.9 ^P	111 ± 3.9 ^P	105 ± 5.8 ^P	127 ± 18.6 ^P
5000.0					
10000.0	162 ± 1.5 ^P	121 ± 16.9 ^P	133 ± 6.0 ^P	129 ± 9.0 ^P	160 ± 12.7 ^P
Trial Summary	Negative	Equivocal	Equivocal	Equivocal	Negative
Positive Control ⁴					
Positive Control ⁶			372 ± 56.4	887 ± 103.6	668 ± 8.7
Positive Control ⁷	667 ± 17.5	475 ± 27.0			

Experiment Number: A07612

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: All-trans-retinyl palmitate
CAS Number: 79-81-2

Date Report Requested: 09/15/2018

Time Report Requested: 16:09:15

Strain: TA97

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 30% Hamster S9	With 30% Hamster S9
Vehicle Control ¹	100 ± 7.8	93 ± 1.8	99 ± 8.0	101 ± 10.1
100.0	91 ± 5.8	94 ± 2.1	129 ± 18.2	
333.0	87 ± 2.0	103 ± 1.8	88 ± 5.2	100 ± 3.0
1000.0	103 ± 2.6 ^P	95 ± 3.2 ^P	125 ± 13.7 ^P	95 ± 11.0
3333.0	115 ± 15.7 ^P	127 ± 2.8 ^P	141 ± 9.7 ^P	127 ± 22.0 ^P
5000.0				106 ± 6.0 ^P
10000.0	128 ± 11.7 ^P	119 ± 9.0 ^P	132 ± 14.3 ^P	91 ± 3.4 ^P
Trial Summary	Equivocal	Equivocal	Equivocal	Equivocal
Positive Control ⁴	1978 ± 105.0	1282 ± 63.7		
Positive Control ⁶			881 ± 14.4	1440 ± 113.2
Positive Control ⁷				

Experiment Number: A07612

Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data

Test Compound: All-trans-retinyl palmitate

CAS Number: 79-81-2

Date Report Requested: 09/15/2018

Time Report Requested: 16:09:15

Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 30% Rat S9	With 10% Hamster S9
Vehicle Control ¹	14 ± 1.9	14 ± 1.5	16 ± 1.7	13 ± 1.9	19 ± 2.7
100.0	14 ± 2.0	14 ± 0.0	17 ± 0.9	15 ± 1.8	15 ± 0.9
333.0	12 ± 2.0	14 ± 0.3	16 ± 1.0	16 ± 3.5	17 ± 1.5
1000.0	8 ± 1.2 ^P	17 ± 1.5 ^P	16 ± 0.7 ^P	8 ± 1.2 ^P	16 ± 1.2 ^P
3333.0	13 ± 1.7 ^P	16 ± 2.3 ^P	17 ± 1.2 ^P	11 ± 1.2 ^P	24 ± 4.3 ^P
10000.0	12 ± 4.3 ^P	19 ± 1.3 ^P	23 ± 2.6 ^P	10 ± 0.7 ^P	31 ± 4.7 ^P
Trial Summary	Negative	Negative	Negative	Negative	Negative
Positive Control ²			667 ± 41.6		2085 ± 155.7
Positive Control ⁸	172 ± 8.2	112 ± 16.8			
Positive Control ⁵				293 ± 17.4	

Experiment Number: A07612
Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data
Test Compound: All-trans-retinyl palmitate
CAS Number: 79-81-2

Date Report Requested: 09/15/2018
Time Report Requested: 16:09:15

Strain: TA98

Dose (ug/Plate)	With 30% Hamster S9
Vehicle Control ¹	18 ± 1.8
100.0	13 ± 1.2
333.0	15 ± 1.3
1000.0	11 ± 1.2 ^p
3333.0	10 ± 1.9 ^p
10000.0	12 ± 0.9 ^p
Trial Summary	Negative
Positive Control ²	
Positive Control ⁸	
Positive Control ⁵	850 ± 52.8

Experiment Number: A07612
Test Type: Genetic Toxicology - Bacterial
Mutagenicity

G06: Ames Summary Data
Test Compound: All-trans-retinyl palmitate
CAS Number: 79-81-2

Date Report Requested: 09/15/2018
Time Report Requested: 16:09:15

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: 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
- p: Precipitate

**** END OF REPORT ****