

Experiment Number: A37041

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

**G06: Ames Summary Data**

Test Compound: **beta-Carotene**

CAS Number: **7235-40-7**

Date Report Requested: **09/16/2018**

Time Report Requested: **18:49:16**

**NTP Study Number:**

A37041

**Study Result:**

Positive

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Strain: TA100				
Dose (ug/Plate)	Without S9	Without S9	With 30% Rat S9	With 30% Hamster S9
Vehicle Control <sup>1</sup>	102 ± 3.2	109 ± 2.6	117 ± 4.7	132 ± 7.2
100.0	116 ± 2.0 <sup>P</sup>	106 ± 20.2 <sup>P</sup>	116 ± 4.6 <sup>P</sup>	131 ± 4.2 <sup>P</sup>
333.0	122 ± 1.0 <sup>P</sup>	137 ± 15.3 <sup>P</sup>	115 ± 2.0 <sup>P</sup>	134 ± 2.7 <sup>P</sup>
1000.0	146 ± 4.8 <sup>P</sup>	151 ± 7.4 <sup>P</sup>	116 ± 4.9 <sup>P</sup>	150 ± 5.1 <sup>P</sup>
3333.0	220 ± 19.2 <sup>P</sup>	206 ± 8.5 <sup>P</sup>	128 ± 10.5 <sup>P</sup>	127 ± 7.0 <sup>P</sup>
10000.0	349 ± 15.5 <sup>P</sup>	441 ± 31.5 <sup>P</sup>	113 ± 3.2 <sup>P</sup>	117 ± 3.4 <sup>P</sup>
Trial Summary	Positive	Positive	Negative	Negative
Positive Control <sup>2</sup>				828 ± 40.1
Positive Control <sup>3</sup>	850 ± 31.7	922 ± 38.1		
Positive Control <sup>4</sup>			907 ± 102.3	

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Strain: TA1535

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Dose (ug/Plate)	Without S9
Vehicle Control <sup>1</sup>	15 ± 1.8
100.0	16 ± 1.8 <sup>P</sup>
333.0	17 ± 1.5 <sup>P</sup>
1000.0	17 ± 1.9 <sup>P</sup>
3333.0	14 ± 3.1 <sup>P</sup>
10000.0	16 ± 2.7 <sup>P</sup>
Trial Summary	Negative
Positive Control <sup>3</sup>	1005 ± 22.0

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**Strain: TA97**

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<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>Without S9</b>
Vehicle Control <sup>1</sup>	158 ± 21.3	114 ± 11.3
100.0	166 ± 11.7 <sup>p</sup>	116 ± 16.2 <sup>p</sup>
333.0	277 ± 6.7 <sup>p</sup>	206 ± 4.4 <sup>p</sup>
1000.0	315 ± 35.8 <sup>p</sup>	247 ± 10.1 <sup>p</sup>
3333.0	399 ± 5.9 <sup>p</sup>	323 ± 1.8 <sup>p</sup>
10000.0	436 ± 22.3 <sup>p</sup>	433 ± 17.2 <sup>p</sup>
Trial Summary	Positive	Positive
Positive Control <sup>5</sup>	533 ± 21.9	586 ± 31.5

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**Strain: TA98**

<b>Dose (ug/Plate)</b>	<b>Without S9</b>	<b>With 30% Rat S9</b>	<b>With 30% Hamster S9</b>
Vehicle Control <sup>1</sup>	13 ± 0.6	21 ± 2.1	20 ± 2.3
100.0	14 ± 2.3 <sup>P</sup>	15 ± 2.1 <sup>P</sup>	18 ± 3.2 <sup>P</sup>
333.0	13 ± 0.6 <sup>P</sup>	19 ± 2.7 <sup>P</sup>	22 ± 1.0 <sup>P</sup>
1000.0	12 ± 1.3 <sup>P</sup>	19 ± 1.2 <sup>P</sup>	19 ± 1.5 <sup>P</sup>
3333.0	16 ± 1.5 <sup>P</sup>	23 ± 6.3 <sup>P</sup>	18 ± 0.9 <sup>P</sup>
10000.0	13 ± 1.5 <sup>P</sup>	17 ± 2.2 <sup>P</sup>	17 ± 1.2 <sup>P</sup>
Trial Summary	Negative	Negative	Negative
Positive Control <sup>2</sup>			905 ± 18.6
Positive Control <sup>6</sup>	460 ± 13.9		
Positive Control <sup>4</sup>		652 ± 23.5	

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Strain: TA102

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Dose (ug/Plate)	Without S9
Vehicle Control <sup>1</sup>	211 ± 19.9
100.0	226 ± 36.2 <sup>p</sup>
333.0	237 ± 25.0 <sup>p</sup>
1000.0	234 ± 10.7 <sup>p</sup>
3333.0	185 ± 16.5 <sup>p</sup>
10000.0	236 ± 21.2 <sup>p</sup>
Trial Summary	Negative
Positive Control <sup>7</sup>	690 ± 27.2

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Strain: TA104

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Dose (ug/Plate)	Without S9
Vehicle Control <sup>1</sup>	377 ± 12.6
100.0	386 ± 16.2 <sup>p</sup>
333.0	406 ± 8.7 <sup>p</sup>
1000.0	397 ± 6.1 <sup>p</sup>
3333.0	431 ± 21.8 <sup>p</sup>
10000.0	419 ± 34.4 <sup>p</sup>
Trial Summary	Negative
Positive Control <sup>8</sup>	753 ± 23.6

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### **LEGEND**

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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: Dimethyl Sulfoxide

2: 2.0 ug/Plate 2-Aminoanthracene

3: 5.0 ug/Plate Sodium Azide

4: 5.0 ug/Plate 2-Aminoanthracene

5: 50.0 ug/Plate 9-Aminoacridine

6: 2.5 ug/Plate 4-Nitro-O-Phenylenediamine

7: 0.5 ug/Plate Mitomycin-C

8: 250.0 ug/Plate Methyl Methane Sulfonate

p: Precipitate

**\*\* END OF REPORT \*\***