

Experiment Number: A29697

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

**G06: Ames Summary Data**

Test Compound: **alpha-Pinene**

CAS Number: **80-56-8**

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

Time Report Requested: **15:04:15**

**NTP Study Number:**

A29697

**Study Result:**

Negative

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Mutagenicity

## G06: Ames Summary Data

Test Compound: alpha-Pinene

CAS Number: 80-56-8

Date Report Requested: 09/16/2018

Time Report Requested: 15:04:15

## Strain: TA100

| Dose (ug/Plate)               | Without S9 | Without S9 | Without S9 | With 10% Rat S9       | With 10% Rat S9 |
|-------------------------------|------------|------------|------------|-----------------------|-----------------|
| Vehicle Control <sup>1</sup>  | 38 ± 3.8   | 49 ± 2.0   | 57 ± 7.2   | 48 ± 9.7              | 70 ± 2.2        |
| 5.0                           |            |            | 48 ± 2.3   |                       |                 |
| 10.0                          | 45 ± 5.9   | 46 ± 5.3   | 49 ± 4.3   |                       |                 |
| 25.0                          |            |            | 52 ± 1.8   |                       |                 |
| 50.0                          | 41 ± 13.4  | 44 ± 3.5   | 29 ± 2.9   | 50 ± 6.7              | 65 ± 5.5        |
| 75.0                          |            |            | 14 ± 0.6   |                       |                 |
| 100.0                         | 54 ± 14.7  | 63 ± 4.5   |            | 40 ± 3.5              | 80 ± 1.2        |
| 200.0                         |            | 57 ± 4.2   |            |                       |                 |
| 250.0                         | 19 ± 5.8   |            |            |                       |                 |
| 400.0                         |            | 10 ± 0.9   |            |                       |                 |
| 500.0                         | 12 ± 3.7   |            |            | 52 ± 5.5              | 63 ± 5.9        |
| 1000.0                        |            |            |            | 38 ± 2.3              | 58 ± 10.8       |
| 1500.0                        |            |            |            |                       |                 |
| 2500.0                        |            |            |            |                       |                 |
| 5000.0                        |            |            |            | 27 ± 2.1 <sup>s</sup> | 33 ± 3.2        |
| 10000.0                       |            |            |            |                       |                 |
| Trial Summary                 | Negative   | Negative   | Negative   | Negative              | Negative        |
| Positive Control <sup>2</sup> | 574 ± 1.2  | 428 ± 39.3 | 387 ± 19.3 |                       |                 |
| Positive Control <sup>3</sup> |            |            |            | 510 ± 26.7            | 738 ± 30.5      |

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Strain: TA100

| Dose (ug/Plate)               | With 10% Rat S9 | With 10% Rat S9 |
|-------------------------------|-----------------|-----------------|
| Vehicle Control <sup>1</sup>  | 63 ± 3.8        | 56 ± 1.8        |
| 5.0                           |                 |                 |
| 10.0                          |                 |                 |
| 25.0                          |                 |                 |
| 50.0                          | 57 ± 5.2        |                 |
| 75.0                          |                 |                 |
| 100.0                         | 85 ± 15.0       |                 |
| 200.0                         |                 |                 |
| 250.0                         |                 |                 |
| 400.0                         |                 |                 |
| 500.0                         | 48 ± 4.4        | 49 ± 4.4        |
| 1000.0                        | 39 ± 2.6        |                 |
| 1500.0                        |                 | 46 ± 2.0        |
| 2500.0                        |                 | 50 ± 2.0        |
| 5000.0                        | 90 ± 4.3        | 21 ± 0.9        |
| 10000.0                       |                 | 11 ± 0.7        |
| Trial Summary                 | Negative        | Negative        |
| Positive Control <sup>2</sup> |                 |                 |
| Positive Control <sup>3</sup> | 1161 ± 65.4     | 665 ± 29.1      |

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## G06: Ames Summary Data

Test Compound: alpha-Pinene

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## Strain: TA98

| Dose (ug/Plate)               | Without S9            | Without S9           | Without S9 | With 10% Rat S9       | With 10% Rat S9 |
|-------------------------------|-----------------------|----------------------|------------|-----------------------|-----------------|
| Vehicle Control <sup>1</sup>  | 22 ± 2.7              | 15 ± 2.9             | 21 ± 2.4   | 28 ± 5.3              | 22 ± 2.1        |
| 5.0                           |                       | 10 ± 3.2             | 23 ± 3.2   |                       |                 |
| 10.0                          | 25 ± 3.0              | 9 ± 0.6              | 19 ± 4.4   |                       |                 |
| 20.0                          |                       | 8 ± 3.1              |            |                       |                 |
| 25.0                          |                       |                      | 18 ± 0.3   |                       |                 |
| 30.0                          |                       | 6 ± 0.9              |            |                       |                 |
| 40.0                          |                       | 4 ± 1.2 <sup>p</sup> |            |                       |                 |
| 50.0                          | 8 ± 1.7 <sup>s</sup>  |                      | 18 ± 2.7   | 20 ± 2.9              | 22 ± 1.2        |
| 75.0                          |                       |                      | 9 ± 1.9    |                       |                 |
| 100.0                         | 15 ± 2.2 <sup>s</sup> |                      |            | 31 ± 3.2              | 21 ± 2.6        |
| 200.0                         |                       |                      |            |                       |                 |
| 250.0                         | 4 ± 1.2 <sup>s</sup>  |                      |            |                       |                 |
| 400.0                         |                       |                      |            |                       |                 |
| 500.0                         | Toxic                 |                      |            | 25 ± 2.3              | 19 ± 2.4        |
| 1000.0                        |                       |                      |            | 28 ± 4.8              | 35 ± 2.5        |
| 1500.0                        |                       |                      |            |                       |                 |
| 2500.0                        |                       |                      |            |                       |                 |
| 5000.0                        |                       |                      |            | 15 ± 1.2 <sup>s</sup> | 7 ± 0.7         |
| 10000.0                       |                       |                      |            |                       |                 |
| Trial Summary                 | Negative              | Negative             | Negative   | Negative              | Negative        |
| Positive Control <sup>4</sup> |                       |                      |            |                       | 372 ± 38.1      |
| Positive Control <sup>3</sup> |                       |                      |            | 1008 ± 31.5           |                 |
| Positive Control <sup>5</sup> | 468 ± 17.3            | 506 ± 17.4           | 295 ± 14.3 |                       |                 |
| Positive Control <sup>6</sup> |                       |                      |            |                       |                 |

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Strain: TA98

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| Dose (ug/Plate)               | With 10% Rat S9 |
|-------------------------------|-----------------|
| Vehicle Control <sup>1</sup>  | 30 ± 4.2        |
| 5.0                           |                 |
| 10.0                          |                 |
| 20.0                          |                 |
| 25.0                          |                 |
| 30.0                          |                 |
| 40.0                          |                 |
| 50.0                          |                 |
| 75.0                          |                 |
| 100.0                         |                 |
| 200.0                         |                 |
| 250.0                         |                 |
| 400.0                         |                 |
| 500.0                         | 32 ± 0.7        |
| 1000.0                        |                 |
| 1500.0                        | 24 ± 5.4        |
| 2500.0                        | 21 ± 1.2        |
| 5000.0                        | 13 ± 2.7        |
| 10000.0                       | 9 ± 0.6         |
| Trial Summary                 | Negative        |
| Positive Control <sup>4</sup> |                 |
| Positive Control <sup>3</sup> | 418 ± 21.8      |
| Positive Control <sup>5</sup> |                 |
| Positive Control <sup>6</sup> |                 |

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## Strain: E. coli WP2 uvrA pKM101

| Dose (ug/Plate)               | Without S9   | Without S9   | Without S9 | With 10% Rat S9 | With 10% Rat S9 |
|-------------------------------|--------------|--------------|------------|-----------------|-----------------|
| Vehicle Control <sup>1</sup>  | 161 ± 7.2    | 181 ± 46.1   | 136 ± 1.5  | 204 ± 12.3      | 266 ± 53.5      |
| 100.0                         | 141 ± 5.2    | 90 ± 7.8     | 139 ± 4.4  | 224 ± 4.1       | 210 ± 1.5       |
| 500.0                         | 135 ± 11.8   | 89 ± 1.9     | 175 ± 31.4 | 193 ± 13.1      | 208 ± 3.3       |
| 1000.0                        | 137 ± 3.2    | 84 ± 18.7    | 156 ± 8.7  | 207 ± 17.2      | 287 ± 46.0      |
| 5000.0                        | 132 ± 4.0    | 94 ± 4.7     | 148 ± 3.1  | 184 ± 20.8      | 162 ± 10.5      |
| 10000.0                       | 126 ± 2.3    | 78 ± 5.1     | 165 ± 9.6  | 188 ± 12.5      | 174 ± 23.6      |
| Trial Summary                 | Negative     | Negative     | Negative   | Negative        | Negative        |
| Positive Control <sup>7</sup> |              |              |            | 1171 ± 9.9      | 710 ± 32.1      |
| Positive Control <sup>8</sup> | 1529 ± 121.3 | 1183 ± 140.0 | 930 ± 19.3 |                 |                 |

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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: 1.0 ug/Plate Sodium Azide

3: 2.5 ug/Plate 2-Aminoanthracene

4: 2.5 nmoles/L 2-Aminoanthracene

5: 5.0 ug/Plate 2-Nitrofluorene

6: 5.0 ug/Plate 2-Aminoanthracene

7: 20.0 ug/Plate 2-Aminoanthracene

8: 4000.0 ug/Plate Methyl Methane Sulfonate

p: Precipitate

s: Slight Toxicity

\*\* END OF REPORT \*\*