

**Experiment Number:** 88036-02  
**Test Type:** 90-DAY  
**Species/Strain:** Mouse/B6C3F1

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

**Test Compound:** Anthraquinone  
**CAS Number:** 84-65-1

**Date Report Requested:** 10/17/2014  
**Time Report Requested:** 16:13:49  
**First Dose M/F:** NA / NA  
**Lab:** BAT

**C Number:** C88036  
**Lock Date:** 08/10/1994  
**Cage Range:** All  
**Date Range:** All  
**Reasons For Removal:** All  
**Removal Date Range:** All  
**Treatment Groups:** All  
**Study Gender:** Both  
**PWG Approval Date:** NONE

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**First Dose M/F:** NA / NA

**Lab:** BAT

**SUMMARY OF STATISTICALLY SIGNIFICANT ( $P \leq .05$ ) RESULTS IN THE ANALYSIS OF ANTHRAQUINONE**

**MALE MOUSE**

**Organ**

Liver: Centrilobular

Spleen

Urinary Bladder: Transit Epithe

**FEMALE MOUSE**

**Organ**

Liver: Centrilobular

Spleen

Urinary Bladder: Transit Epithe

**Morphology**

Hypertrophy

Hematopoietic Cell Proliferation

Pigmentation

Cytoplasmic Alteration

**Morphology**

Hypertrophy

Hematopoietic Cell Proliferation

Cytoplasmic Alteration

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 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                     | MALE      |           |           |           |            |           |
|--------------------------|-----------|-----------|-----------|-----------|------------|-----------|
|                          | 0 PPM     | 1875 PPM  | 3750 PPM  | 7500 PPM  | 15000 PPM  | 30000 PPM |
| <b>Liver</b>             |           |           |           |           |            |           |
| <b>Degeneration</b>      |           |           |           |           |            |           |
| <b>LESION RATES</b>      |           |           |           |           |            |           |
| OVERALL(a)               | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 1/10 (10%) | 0/10 (0%) |
| POLY-3 RATE (b)          | 0/10.00   | 0/10.00   | 0/10.00   | 0/10.00   | 1/10.00    | 0/10.00   |
| POLY-3 PERCENT (g)       | 0%        | 0%        | 0%        | 0%        | 10%        | 0%        |
| TERMINAL (d)             | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 1/10 (10%) | 0/10 (0%) |
| FIRST INCIDENCE          | ---       | ---       | ---       | ---       | 92(T)      | ---       |
| <b>STATISTICAL TESTS</b> |           |           |           |           |            |           |
| POLY 3                   | P=0.584   | (e)       | (e)       | (e)       | P=0.500    | (e)       |
| POLY 1.5                 | P=0.584   | (e)       | (e)       | (e)       | P=0.500    | (e)       |
| POLY 6                   | P=0.584   | (e)       | (e)       | (e)       | P=0.500    | (e)       |
| COCH-ARM / FISHERS       | P=0.585   | (e)       | (e)       | (e)       | P=0.500    | (e)       |
| MAX-ISO-POLY-3           | P=0.356   | (e)       | (e)       | (e)       | P=0.159    | (e)       |
| HISTCONT SAME RTE        |           |           |           |           |            |           |
| HISTCONT ALL RTES        |           |           |           |           |            |           |
| CURR VS HC SAME RTE      |           |           |           |           |            |           |
| CURR VS HC ALL RTES      |           |           |           |           |            |           |

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 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                     | MALE      |           |           |           |           |           |
|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|                          | 0 PPM     | 1875 PPM  | 3750 PPM  | 7500 PPM  | 15000 PPM | 30000 PPM |
| <b>Liver</b>             |           |           |           |           |           |           |
| <b>Necrosis Focal</b>    |           |           |           |           |           |           |
| <b>LESION RATES</b>      |           |           |           |           |           |           |
| OVERALL(a)               | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) |
| POLY-3 RATE (b)          | 0/10.00   | 0/10.00   | 0/10.00   | 0/10.00   | 0/10.00   | 0/10.00   |
| POLY-3 PERCENT (g)       | 0%        | 0%        | 0%        | 0%        | 0%        | 0%        |
| TERMINAL (d)             | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) |
| FIRST INCIDENCE          | ---       | ---       | ---       | ---       | ---       | ---       |
| <b>STATISTICAL TESTS</b> |           |           |           |           |           |           |
| POLY 3                   | (n)       | (n)       | (n)       | (n)       | (n)       | (n)       |
| POLY 1.5                 | (n)       | (n)       | (n)       | (n)       | (n)       | (n)       |
| POLY 6                   | (n)       | (n)       | (n)       | (n)       | (n)       | (n)       |
| COCH-ARM / FISHERS       | (n)       | (n)       | (n)       | (n)       | (n)       | (n)       |
| MAX-ISO-POLY-3           | (n)       | (n)       | (n)       | (n)       | (n)       | (n)       |
| HISTCONT SAME RTE        |           |           |           |           |           |           |
| HISTCONT ALL RTES        |           |           |           |           |           |           |
| CURR VS HC SAME RTE      |           |           |           |           |           |           |
| CURR VS HC ALL RTES      |           |           |           |           |           |           |

Experiment Number: 88036-02  
 Test Type: 90-DAY  
 Species/Strain: Mouse/B6C3F1

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**  
 Test Compound: Anthraquinone  
 CAS Number: 84-65-1

Date Report Requested: 10/17/2014  
 Time Report Requested: 16:13:49  
 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                                    | MALE      |            |            |              |              |              |
|---|-----------|------------|------------|--------------|--------------|--------------|
|   | 0 PPM     | 1875 PPM   | 3750 PPM   | 7500 PPM     | 15000 PPM    | 30000 PPM    |
| <b>Liver: Centrilobular Hypertrophy</b> |           |            |            |              |              |              |
| <b>LESION RATES</b>                     |           |            |            |              |              |              |
| OVERALL(a)                              | 0/10 (0%) | 1/10 (10%) | 9/10 (90%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) |
| POLY-3 RATE (b)                         | 0/10.00   | 1/10.00    | 9/10.00    | 10/10.00     | 10/10.00     | 10/10.00     |
| POLY-3 PERCENT (g)                      | 0%        | 10%        | 90%        | 100%         | 100%         | 100%         |
| TERMINAL (d)                            | 0/10 (0%) | 1/10 (10%) | 9/10 (90%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) |
| FIRST INCIDENCE                         | ---       | 92(T)      | 92(T)      | 92(T)        | 92(T)        | 92(T)        |
| <b>STATISTICAL TESTS</b>                |           |            |            |              |              |              |
| POLY 3                                  | P=0.000** | P=0.500    | P=0.000**  | P=NA         | P=NA         | P=NA         |
| POLY 1.5                                | P=0.000** | P=0.500    | P=0.000**  | P=NA         | P=NA         | P=NA         |
| POLY 6                                  | P=0.000** | P=0.500    | P=0.000**  | P=NA         | P=NA         | P=NA         |
| COCH-ARM / FISHERS                      | P=0.000** | P=0.500    | P=0.000**  | P=0.000**    | P=0.000**    | P=0.000**    |
| MAX-ISO-POLY-3                          | P=0.000** | P=0.159    | P=0.000**  | (e)          | (e)          | (e)          |
| HISTCONT SAME RTE                       |           |            |            |              |              |              |
| HISTCONT ALL RTES                       |           |            |            |              |              |              |
| CURR VS HC SAME RTE                     |           |            |            |              |              |              |
| CURR VS HC ALL RTES                     |           |            |            |              |              |              |

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 Time Report Requested: 16:13:49  
 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                     | MALE      |          |          |          |           |            |
|--------------------------|-----------|----------|----------|----------|-----------|------------|
|                          | 0 PPM     | 1875 PPM | 3750 PPM | 7500 PPM | 15000 PPM | 30000 PPM  |
| Nose: Olfactory Epi      |           |          |          |          |           |            |
| Atrophy Focal            |           |          |          |          |           |            |
| <b>LESION RATES</b>      |           |          |          |          |           |            |
| OVERALL(a)               | 0/10 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%)  | 1/10 (10%) |
| POLY-3 RATE (b)          | 0/10.00   | 0/0.00   | 0/0.00   | 0/0.00   | 0/0.00    | 1/10.00    |
| POLY-3 PERCENT (g)       | 0%        | 0%       | 0%       | 0%       | 0%        | 10%        |
| TERMINAL (d)             | 0/10 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%)  | 1/10 (10%) |
| FIRST INCIDENCE          | ---       | ---      | ---      | ---      | ---       | 92(T)      |
| <b>STATISTICAL TESTS</b> |           |          |          |          |           |            |
| POLY 3                   | (e)       | (e)      | (e)      | (e)      | (e)       | P=0.500    |
| POLY 1.5                 | (e)       | (e)      | (e)      | (e)      | (e)       | P=0.500    |
| POLY 6                   | (e)       | (e)      | (e)      | (e)      | (e)       | P=0.500    |
| COCH-ARM / FISHERS       | P=0.304   | (e)      | (e)      | (e)      | (e)       | P=0.500    |
| MAX-ISO-POLY-3           | (e)       | (e)      | (e)      | (e)      | (e)       | P=0.159    |
| HISTCONT SAME RTE        |           |          |          |          |           |            |
| HISTCONT ALL RTES        |           |          |          |          |           |            |
| CURR VS HC SAME RTE      |           |          |          |          |           |            |
| CURR VS HC ALL RTES      |           |          |          |          |           |            |

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 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                          | MALE      |          |          |          |           |           |
|-------------------------------|-----------|----------|----------|----------|-----------|-----------|
|                               | 0 PPM     | 1875 PPM | 3750 PPM | 7500 PPM | 15000 PPM | 30000 PPM |
| <b>Pancreas: Acinus</b>       |           |          |          |          |           |           |
| <b>Cytoplasmic Alteration</b> |           |          |          |          |           |           |
| <b>LESION RATES</b>           |           |          |          |          |           |           |
| OVERALL(a)                    | 0/10 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%)  | 0/10 (0%) |
| POLY-3 RATE (b)               | 0/10.00   | 0/0.00   | 0/0.00   | 0/0.00   | 0/0.00    | 0/10.00   |
| POLY-3 PERCENT (g)            | 0%        | 0%       | 0%       | 0%       | 0%        | 0%        |
| TERMINAL (d)                  | 0/10 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%)  | 0/10 (0%) |
| FIRST INCIDENCE               | ---       | ---      | ---      | ---      | ---       | ---       |
| <b>STATISTICAL TESTS</b>      |           |          |          |          |           |           |
| POLY 3                        | (n)       | (n)      | (n)      | (n)      | (n)       | (n)       |
| POLY 1.5                      | (n)       | (n)      | (n)      | (n)      | (n)       | (n)       |
| POLY 6                        | (n)       | (n)      | (n)      | (n)      | (n)       | (n)       |
| COCH-ARM / FISHERS            | (n)       | (n)      | (n)      | (n)      | (n)       | (n)       |
| MAX-ISO-POLY-3                | (n)       | (n)      | (n)      | (n)      | (n)       | (n)       |
| HISTCONT SAME RTE             |           |          |          |          |           |           |
| HISTCONT ALL RTES             |           |          |          |          |           |           |
| CURR VS HC SAME RTE           |           |          |          |          |           |           |
| CURR VS HC ALL RTES           |           |          |          |          |           |           |

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 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                                    | MALE      |            |              |              |              |            |
|---|-----------|------------|--------------|--------------|--------------|------------|
|   | 0 PPM     | 1875 PPM   | 3750 PPM     | 7500 PPM     | 15000 PPM    | 30000 PPM  |
| <b>Spleen</b>                           |           |            |              |              |              |            |
| <b>Hematopoietic Cell Proliferation</b> |           |            |              |              |              |            |
| <b>LESION RATES</b>                     |           |            |              |              |              |            |
| OVERALL(a)                              | 0/10 (0%) | 6/10 (60%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 9/10 (90%) |
| POLY-3 RATE (b)                         | 0/10.00   | 6/10.00    | 10/10.00     | 10/10.00     | 10/10.00     | 9/10.00    |
| POLY-3 PERCENT (g)                      | 0%        | 60%        | 100%         | 100%         | 100%         | 90%        |
| TERMINAL (d)                            | 0/10 (0%) | 6/10 (60%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 9/10 (90%) |
| FIRST INCIDENCE                         | ---       | 92(T)      | 92(T)        | 92(T)        | 92(T)        | 92(T)      |
| <b>STATISTICAL TESTS</b>                |           |            |              |              |              |            |
| POLY 3                                  | P=0.000** | P<0.001**  | P=NA         | P=NA         | P=NA         | P=0.000**  |
| POLY 1.5                                | P=0.000** | P<0.001**  | P=NA         | P=NA         | P=NA         | P=0.000**  |
| POLY 6                                  | P=0.000** | P<0.001**  | P=NA         | P=NA         | P=NA         | P=0.000**  |
| COCH-ARM / FISHERS                      | P=0.002** | P=0.005**  | P=0.000**    | P=0.000**    | P=0.000**    | P=0.000**  |
| MAX-ISO-POLY-3                          | P=0.000** | P=0.000**  | (e)          | (e)          | (e)          | P=0.000**  |
| HISTCONT SAME RTE                       |           |            |              |              |              |            |
| HISTCONT ALL RTEs                       |           |            |              |              |              |            |
| CURR VS HC SAME RTE                     |           |            |              |              |              |            |
| CURR VS HC ALL RTEs                     |           |            |              |              |              |            |



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 Species/Strain: Mouse/B6C3F1

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**  
 Test Compound: Anthraquinone  
 CAS Number: 84-65-1

Date Report Requested: 10/17/2014  
 Time Report Requested: 16:13:49  
 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                       | MALE      |              |              |              |              |            |
|----------------------------|-----------|--------------|--------------|--------------|--------------|------------|
|                            | 0 PPM     | 1875 PPM     | 3750 PPM     | 7500 PPM     | 15000 PPM    | 30000 PPM  |
| <b>Spleen Pigmentation</b> |           |              |              |              |              |            |
| <b>LESION RATES</b>        |           |              |              |              |              |            |
| OVERALL(a)                 | 0/10 (0%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 9/10 (90%) |
| POLY-3 RATE (b)            | 0/10.00   | 10/10.00     | 10/10.00     | 10/10.00     | 10/10.00     | 9/10.00    |
| POLY-3 PERCENT (g)         | 0%        | 100%         | 100%         | 100%         | 100%         | 90%        |
| TERMINAL (d)               | 0/10 (0%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 9/10 (90%) |
| FIRST INCIDENCE            | ---       | 92(T)        | 92(T)        | 92(T)        | 92(T)        | 92(T)      |
| <b>STATISTICAL TESTS</b>   |           |              |              |              |              |            |
| POLY 3                     | P=0.000** | P=NA         | P=NA         | P=NA         | P=NA         | P=0.000**  |
| POLY 1.5                   | P=0.000** | P=NA         | P=NA         | P=NA         | P=NA         | P=0.000**  |
| POLY 6                     | P=0.000** | P=NA         | P=NA         | P=NA         | P=NA         | P=0.000**  |
| COCH-ARM / FISHERS         | P=0.013*  | P=0.000**    | P=0.000**    | P=0.000**    | P=0.000**    | P=0.000**  |
| MAX-ISO-POLY-3             | P=0.000** | (e)          | (e)          | (e)          | (e)          | P=0.000**  |
| HISTCONT SAME RTE          |           |              |              |              |              |            |
| HISTCONT ALL RTES          |           |              |              |              |              |            |
| CURR VS HC SAME RTE        |           |              |              |              |              |            |
| CURR VS HC ALL RTES        |           |              |              |              |              |            |

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 Time Report Requested: 16:13:49  
 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                                   | MALE      |              |              |              |              |              |
|--|-----------|--------------|--------------|--------------|--------------|--------------|
|  | 0 PPM     | 1875 PPM     | 3750 PPM     | 7500 PPM     | 15000 PPM    | 30000 PPM    |
| <b>Urinary Bladder: Transit Epithe</b> |           |              |              |              |              |              |
| <b>Cytoplasmic Alteration</b>          |           |              |              |              |              |              |
| <b>LESION RATES</b>                    |           |              |              |              |              |              |
| OVERALL(a)                             | 0/10 (0%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) |
| POLY-3 RATE (b)                        | 0/10.00   | 10/10.00     | 10/10.00     | 10/10.00     | 10/10.00     | 10/10.00     |
| POLY-3 PERCENT (g)                     | 0%        | 100%         | 100%         | 100%         | 100%         | 100%         |
| TERMINAL (d)                           | 0/10 (0%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) |
| FIRST INCIDENCE                        | ---       | 92(T)        | 92(T)        | 92(T)        | 92(T)        | 92(T)        |
| <b>STATISTICAL TESTS</b>               |           |              |              |              |              |              |
| POLY 3                                 | P<0.001** | P=NA         | P=NA         | P=NA         | P=NA         | P=NA         |
| POLY 1.5                               | P<0.001** | P=NA         | P=NA         | P=NA         | P=NA         | P=NA         |
| POLY 6                                 | P<0.001** | P=NA         | P=NA         | P=NA         | P=NA         | P=NA         |
| COCH-ARM / FISHERS                     | P<0.001** | P=0.000**    | P=0.000**    | P=0.000**    | P=0.000**    | P=0.000**    |
| MAX-ISO-POLY-3                         | P=0.000** | (e)          | (e)          | (e)          | (e)          | (e)          |
| HISTCONT SAME RTE                      |           |              |              |              |              |              |
| HISTCONT ALL RTEs                      |           |              |              |              |              |              |
| CURR VS HC SAME RTE                    |           |              |              |              |              |              |
| CURR VS HC ALL RTEs                    |           |              |              |              |              |              |

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 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                     | FEMALE    |           |           |           |           |           |
|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
|                          | 0 PPM     | 1875 PPM  | 3750 PPM  | 7500 PPM  | 15000 PPM | 30000 PPM |
| <b>Liver</b>             |           |           |           |           |           |           |
| <b>Degeneration</b>      |           |           |           |           |           |           |
| <b>LESION RATES</b>      |           |           |           |           |           |           |
| OVERALL(a)               | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) |
| POLY-3 RATE (b)          | 0/10.00   | 0/10.00   | 0/10.00   | 0/10.00   | 0/10.00   | 0/10.00   |
| POLY-3 PERCENT (g)       | 0%        | 0%        | 0%        | 0%        | 0%        | 0%        |
| TERMINAL (d)             | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) |
| FIRST INCIDENCE          | ---       | ---       | ---       | ---       | ---       | ---       |
| <b>STATISTICAL TESTS</b> |           |           |           |           |           |           |
| POLY 3                   | (n)       | (n)       | (n)       | (n)       | (n)       | (n)       |
| POLY 1.5                 | (n)       | (n)       | (n)       | (n)       | (n)       | (n)       |
| POLY 6                   | (n)       | (n)       | (n)       | (n)       | (n)       | (n)       |
| COCH-ARM / FISHERS       | (n)       | (n)       | (n)       | (n)       | (n)       | (n)       |
| MAX-ISO-POLY-3           | (n)       | (n)       | (n)       | (n)       | (n)       | (n)       |
| HISTCONT SAME RTE        |           |           |           |           |           |           |
| HISTCONT ALL RTES        |           |           |           |           |           |           |
| CURR VS HC SAME RTE      |           |           |           |           |           |           |
| CURR VS HC ALL RTES      |           |           |           |           |           |           |

Experiment Number: 88036-02  
 Test Type: 90-DAY  
 Species/Strain: Mouse/B6C3F1

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Test Compound: Anthraquinone  
 CAS Number: 84-65-1

Date Report Requested: 10/17/2014  
 Time Report Requested: 16:13:49  
 First Dose M/F: NA / NA  
 Lab: BAT

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS

| DOSE                     | FEMALE    |           |           |           |            |           |
|--------------------------|-----------|-----------|-----------|-----------|------------|-----------|
|                          | 0 PPM     | 1875 PPM  | 3750 PPM  | 7500 PPM  | 15000 PPM  | 30000 PPM |
| Liver                    |           |           |           |           |            |           |
| Necrosis Focal           |           |           |           |           |            |           |
| <b>LESION RATES</b>      |           |           |           |           |            |           |
| OVERALL(a)               | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 1/10 (10%) | 0/10 (0%) |
| POLY-3 RATE (b)          | 0/10.00   | 0/10.00   | 0/10.00   | 0/10.00   | 1/10.00    | 0/10.00   |
| POLY-3 PERCENT (g)       | 0%        | 0%        | 0%        | 0%        | 10%        | 0%        |
| TERMINAL (d)             | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 0/10 (0%) | 1/10 (10%) | 0/10 (0%) |
| FIRST INCIDENCE          | ---       | ---       | ---       | ---       | 92(T)      | ---       |
| <b>STATISTICAL TESTS</b> |           |           |           |           |            |           |
| POLY 3                   | P=0.584   | (e)       | (e)       | (e)       | P=0.500    | (e)       |
| POLY 1.5                 | P=0.584   | (e)       | (e)       | (e)       | P=0.500    | (e)       |
| POLY 6                   | P=0.584   | (e)       | (e)       | (e)       | P=0.500    | (e)       |
| COCH-ARM / FISHERS       | P=0.585   | (e)       | (e)       | (e)       | P=0.500    | (e)       |
| MAX-ISO-POLY-3           | P=0.356   | (e)       | (e)       | (e)       | P=0.159    | (e)       |
| HISTCONT SAME RTE        |           |           |           |           |            |           |
| HISTCONT ALL RTES        |           |           |           |           |            |           |
| CURR VS HC SAME RTE      |           |           |           |           |            |           |
| CURR VS HC ALL RTES      |           |           |           |           |            |           |

Experiment Number: 88036-02  
 Test Type: 90-DAY  
 Species/Strain: Mouse/B6C3F1

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**  
 Test Compound: Anthraquinone  
 CAS Number: 84-65-1

Date Report Requested: 10/17/2014  
 Time Report Requested: 16:13:49  
 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                                    | FEMALE    |            |            |            |            |              |
|---|-----------|------------|------------|------------|------------|--------------|
|   | 0 PPM     | 1875 PPM   | 3750 PPM   | 7500 PPM   | 15000 PPM  | 30000 PPM    |
| <b>Liver: Centrilobular Hypertrophy</b> |           |            |            |            |            |              |
| <b>LESION RATES</b>                     |           |            |            |            |            |              |
| OVERALL(a)                              | 0/10 (0%) | 2/10 (20%) | 5/10 (50%) | 9/10 (90%) | 7/10 (70%) | 10/10 (100%) |
| POLY-3 RATE (b)                         | 0/10.00   | 2/10.00    | 5/10.00    | 9/10.00    | 7/10.00    | 10/10.00     |
| POLY-3 PERCENT (g)                      | 0%        | 20%        | 50%        | 90%        | 70%        | 100%         |
| TERMINAL (d)                            | 0/10 (0%) | 2/10 (20%) | 5/10 (50%) | 9/10 (90%) | 7/10 (70%) | 10/10 (100%) |
| FIRST INCIDENCE                         | ---       | 92(T)      | 92(T)      | 92(T)      | 92(T)      | 92(T)        |
| <b>STATISTICAL TESTS</b>                |           |            |            |            |            |              |
| POLY 3                                  | P=0.000** | P=0.227    | P=0.008**  | P=0.000**  | P=0.000**  | P=NA         |
| POLY 1.5                                | P=0.000** | P=0.227    | P=0.008**  | P=0.000**  | P=0.000**  | P=NA         |
| POLY 6                                  | P=0.000** | P=0.227    | P=0.008**  | P=0.000**  | P=0.000**  | P=NA         |
| COCH-ARM / FISHERS                      | P=0.000** | P=0.237    | P=0.016*   | P=0.000**  | P=0.002**  | P=0.000**    |
| MAX-ISO-POLY-3                          | P=0.000** | P=0.067    | P<0.001**  | P=0.000**  | P=0.000**  | (e)          |
| HISTCONT SAME RTE                       |           |            |            |            |            |              |
| HISTCONT ALL RTEs                       |           |            |            |            |            |              |
| CURR VS HC SAME RTE                     |           |            |            |            |            |              |
| CURR VS HC ALL RTEs                     |           |            |            |            |            |              |

Experiment Number: 88036-02

Test Type: 90-DAY

Species/Strain: Mouse/B6C3F1

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS

Test Compound: Anthraquinone

CAS Number: 84-65-1

Date Report Requested: 10/17/2014

Time Report Requested: 16:13:49

First Dose M/F: NA / NA

Lab: BAT

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
LAST REMOVAL AT 14286 WEEKS

| DOSE                     | FEMALE    |          |          |          |           |           |
|--------------------------|-----------|----------|----------|----------|-----------|-----------|
|                          | 0 PPM     | 1875 PPM | 3750 PPM | 7500 PPM | 15000 PPM | 30000 PPM |
| Nose: Olfactory Epi      |           |          |          |          |           |           |
| Atrophy Focal            |           |          |          |          |           |           |
| <b>LESION RATES</b>      |           |          |          |          |           |           |
| OVERALL(a)               | 0/10 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%)  | 0/10 (0%) |
| POLY-3 RATE (b)          | 0/10.00   | 0/0.00   | 0/0.00   | 0/0.00   | 0/0.00    | 0/10.00   |
| POLY-3 PERCENT (g)       | 0%        | 0%       | 0%       | 0%       | 0%        | 0%        |
| TERMINAL (d)             | 0/10 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%)  | 0/10 (0%) |
| FIRST INCIDENCE          | ---       | ---      | ---      | ---      | ---       | ---       |
| <b>STATISTICAL TESTS</b> |           |          |          |          |           |           |
| POLY 3                   | (n)       | (n)      | (n)      | (n)      | (n)       | (n)       |
| POLY 1.5                 | (n)       | (n)      | (n)      | (n)      | (n)       | (n)       |
| POLY 6                   | (n)       | (n)      | (n)      | (n)      | (n)       | (n)       |
| COCH-ARM / FISHERS       | (n)       | (n)      | (n)      | (n)      | (n)       | (n)       |
| MAX-ISO-POLY-3           | (n)       | (n)      | (n)      | (n)      | (n)       | (n)       |
| HISTCONT SAME RTE        |           |          |          |          |           |           |
| HISTCONT ALL RTES        |           |          |          |          |           |           |
| CURR VS HC SAME RTE      |           |          |          |          |           |           |
| CURR VS HC ALL RTES      |           |          |          |          |           |           |

Experiment Number: 88036-02  
 Test Type: 90-DAY  
 Species/Strain: Mouse/B6C3F1

P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS  
 Test Compound: Anthraquinone  
 CAS Number: 84-65-1

Date Report Requested: 10/17/2014  
 Time Report Requested: 16:13:49  
 First Dose M/F: NA / NA  
 Lab: BAT

STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS

| DOSE                          | FEMALE    |          |          |          |           |            |
|-------------------------------|-----------|----------|----------|----------|-----------|------------|
|                               | 0 PPM     | 1875 PPM | 3750 PPM | 7500 PPM | 15000 PPM | 30000 PPM  |
| <b>Pancreas: Acinus</b>       |           |          |          |          |           |            |
| <b>Cytoplasmic Alteration</b> |           |          |          |          |           |            |
| <b>LESION RATES</b>           |           |          |          |          |           |            |
| OVERALL(a)                    | 0/10 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%)  | 1/10 (10%) |
| POLY-3 RATE (b)               | 0/10.00   | 0/0.00   | 0/0.00   | 0/0.00   | 0/0.00    | 1/10.00    |
| POLY-3 PERCENT (g)            | 0%        | 0%       | 0%       | 0%       | 0%        | 10%        |
| TERMINAL (d)                  | 0/10 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%) | 0/0 (0%)  | 1/10 (10%) |
| FIRST INCIDENCE               | ---       | ---      | ---      | ---      | ---       | 92(T)      |
| <b>STATISTICAL TESTS</b>      |           |          |          |          |           |            |
| POLY 3                        | (e)       | (e)      | (e)      | (e)      | (e)       | P=0.500    |
| POLY 1.5                      | (e)       | (e)      | (e)      | (e)      | (e)       | P=0.500    |
| POLY 6                        | (e)       | (e)      | (e)      | (e)      | (e)       | P=0.500    |
| COCH-ARM / FISHERS            | P=0.304   | (e)      | (e)      | (e)      | (e)       | P=0.500    |
| MAX-ISO-POLY-3                | (e)       | (e)      | (e)      | (e)      | (e)       | P=0.159    |
| HISTCONT SAME RTE             |           |          |          |          |           |            |
| HISTCONT ALL RTES             |           |          |          |          |           |            |
| CURR VS HC SAME RTE           |           |          |          |          |           |            |
| CURR VS HC ALL RTES           |           |          |          |          |           |            |

Experiment Number: 88036-02  
 Test Type: 90-DAY  
 Species/Strain: Mouse/B6C3F1

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**  
 Test Compound: Anthraquinone  
 CAS Number: 84-65-1

Date Report Requested: 10/17/2014  
 Time Report Requested: 16:13:49  
 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                                    | FEMALE     |            |              |              |            |            |
|---|------------|------------|--------------|--------------|------------|------------|
|   | 0 PPM      | 1875 PPM   | 3750 PPM     | 7500 PPM     | 15000 PPM  | 30000 PPM  |
| <b>Spleen</b>                           |            |            |              |              |            |            |
| <b>Hematopoietic Cell Proliferation</b> |            |            |              |              |            |            |
| <b>LESION RATES</b>                     |            |            |              |              |            |            |
| OVERALL(a)                              | 6/10 (60%) | 9/10 (90%) | 10/10 (100%) | 10/10 (100%) | 9/9 (100%) | 9/10 (90%) |
| POLY-3 RATE (b)                         | 6/10.00    | 9/10.00    | 10/10.00     | 10/10.00     | 9/9.00     | 9/10.00    |
| POLY-3 PERCENT (g)                      | 60%        | 90%        | 100%         | 100%         | 100%       | 90%        |
| TERMINAL (d)                            | 6/10 (60%) | 9/10 (90%) | 10/10 (100%) | 10/10 (100%) | 9/9 (100%) | 9/10 (90%) |
| FIRST INCIDENCE                         | 92(T)      | 92(T)      | 92(T)        | 92(T)        | 92(T)      | 92(T)      |
| <b>STATISTICAL TESTS</b>                |            |            |              |              |            |            |
| POLY 3                                  | P=0.208    | P=0.148    | P=0.033*     | P=0.033*     | P=0.044*   | P=0.148    |
| POLY 1.5                                | P=0.208    | P=0.148    | P=0.033*     | P=0.033*     | P=0.044*   | P=0.148    |
| POLY 6                                  | P=0.208    | P=0.148    | P=0.033*     | P=0.033*     | P=0.044*   | P=0.148    |
| COCH-ARM / FISHERS                      | P=0.224    | P=0.152    | P=0.043*     | P=0.043*     | P=0.054    | P=0.152    |
| MAX-ISO-POLY-3                          | P=0.003**  | P=0.059    | P=0.007**    | P=0.007**    | P=0.012*   | P=0.059    |
| HISTCONT SAME RTE                       |            |            |              |              |            |            |
| HISTCONT ALL RTEs                       |            |            |              |              |            |            |
| CURR VS HC SAME RTE                     |            |            |              |              |            |            |
| CURR VS HC ALL RTEs                     |            |            |              |              |            |            |



Experiment Number: 88036-02  
 Test Type: 90-DAY  
 Species/Strain: Mouse/B6C3F1

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**  
 Test Compound: Anthraquinone  
 CAS Number: 84-65-1

Date Report Requested: 10/17/2014  
 Time Report Requested: 16:13:49  
 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE                       | FEMALE       |              |              |              |            |            |
|----------------------------|--------------|--------------|--------------|--------------|------------|------------|
|                            | 0 PPM        | 1875 PPM     | 3750 PPM     | 7500 PPM     | 15000 PPM  | 30000 PPM  |
| <b>Spleen</b>              |              |              |              |              |            |            |
| <b>Pigmentation</b>        |              |              |              |              |            |            |
| <b>LESION RATES</b>        |              |              |              |              |            |            |
| <b>OVERALL(a)</b>          | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 9/9 (100%) | 9/10 (90%) |
| <b>POLY-3 RATE (b)</b>     | 10/10.00     | 10/10.00     | 10/10.00     | 10/10.00     | 9/9.00     | 9/10.00    |
| <b>POLY-3 PERCENT (g)</b>  | 100%         | 100%         | 100%         | 100%         | 100%       | 90%        |
| <b>TERMINAL (d)</b>        | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 9/9 (100%) | 9/10 (90%) |
| <b>FIRST INCIDENCE</b>     | 92(T)        | 92(T)        | 92(T)        | 92(T)        | 92(T)      | 92(T)      |
| <b>STATISTICAL TESTS</b>   |              |              |              |              |            |            |
| <b>POLY 3</b>              | P=0.107N     | (e)          | (e)          | (e)          | (e)        | P=0.500N   |
| <b>POLY 1.5</b>            | P=0.107N     | (e)          | (e)          | (e)          | (e)        | P=0.500N   |
| <b>POLY 6</b>              | P=0.107N     | (e)          | (e)          | (e)          | (e)        | P=0.500N   |
| <b>COCH-ARM / FISHERS</b>  | P=0.104N     | (e)          | (e)          | (e)          | (e)        | P=0.500N   |
| <b>MAX-ISO-POLY-3</b>      | P=0.077N     | (e)          | (e)          | (e)          | (e)        | P=0.159N   |
| <b>HISTCONT SAME RTE</b>   |              |              |              |              |            |            |
| <b>HISTCONT ALL RTES</b>   |              |              |              |              |            |            |
| <b>CURR VS HC SAME RTE</b> |              |              |              |              |            |            |
| <b>CURR VS HC ALL RTES</b> |              |              |              |              |            |            |

Experiment Number: 88036-02  
 Test Type: 90-DAY  
 Species/Strain: Mouse/B6C3F1

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**  
 Test Compound: Anthraquinone  
 CAS Number: 84-65-1

Date Report Requested: 10/17/2014  
 Time Report Requested: 16:13:49  
 First Dose M/F: NA / NA  
 Lab: BAT

**STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS IN MOUSE(B6C3F1)  
 LAST REMOVAL AT 14286 WEEKS**

| DOSE  | FEMALE    |              |              |              |              |              |
|---|-----------|--------------|--------------|--------------|--------------|--------------|
|   | 0 PPM     | 1875 PPM     | 3750 PPM     | 7500 PPM     | 15000 PPM    | 30000 PPM    |
| <b>Urinary Bladder: Transit Epithe<br/>Cytoplasmic Alteration</b> |           |              |              |              |              |              |
| <b>LESION RATES</b>   |           |              |              |              |              |              |
| OVERALL(a)  | 0/10 (0%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) |
| POLY-3 RATE (b)   | 0/10.00   | 10/10.00     | 10/10.00     | 10/10.00     | 10/10.00     | 10/10.00     |
| POLY-3 PERCENT (g)  | 0%        | 100%         | 100%         | 100%         | 100%         | 100%         |
| TERMINAL (d)  | 0/10 (0%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) | 10/10 (100%) |
| FIRST INCIDENCE   | ---       | 92(T)        | 92(T)        | 92(T)        | 92(T)        | 92(T)        |
| <b>STATISTICAL TESTS</b>  |           |              |              |              |              |              |
| POLY 3  | P<0.001** | P=NA         | P=NA         | P=NA         | P=NA         | P=NA         |
| POLY 1.5  | P<0.001** | P=NA         | P=NA         | P=NA         | P=NA         | P=NA         |
| POLY 6  | P<0.001** | P=NA         | P=NA         | P=NA         | P=NA         | P=NA         |
| COCH-ARM / FISHERS  | P<0.001** | P=0.000**    | P=0.000**    | P=0.000**    | P=0.000**    | P=0.000**    |
| MAX-ISO-POLY-3  | P=0.000** | (e)          | (e)          | (e)          | (e)          | (e)          |
| HISTCONT SAME RTE   |           |              |              |              |              |              |
| HISTCONT ALL RTEs   |           |              |              |              |              |              |
| CURR VS HC SAME RTE   |           |              |              |              |              |              |
| CURR VS HC ALL RTEs   |           |              |              |              |              |              |

**Experiment Number:** 88036-02

**Test Type:** 90-DAY

**Species/Strain:** Mouse/B6C3F1

**P10: STATISTICAL ANALYSIS OF NON-NEOPLASTIC LESIONS**

**Test Compound:** Anthraquinone

**CAS Number:** 84-65-1

**Date Report Requested:** 10/17/2014

**Time Report Requested:** 16:13:49

**First Dose M/F:** NA / NA

**Lab:** BAT

**LEGEND**

- (a) Number of tumor-bearing animals/number of animals examined at site.
  - (b) Number of tumor-bearing animals/Poly-3 number
  - (d) Observed incidence at terminal kill.
  - (e) Value of statistic cannot be computed.
  - (f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group.
  - (g) Poly-3 adjusted lifetime tumor incidence.
  - (n) No statistics are calculated if all dose groups have fewer than two tumors.
  - (I) Interim sacrifice
  - (T) Terminal sacrifice
  - # Tumor rates based on numbers of animals necropsied.
  - \* To the right of any statistical result, indicates significance at ( $P \leq 0.05$ ).
  - \*\* To the right of any statistical result, indicates significance at ( $P \leq 0.01$ ).
  - N Indicates a negative trend for all tests
- The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates.

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