

Experiment Number: C20605-01

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA06: Organ Weights Summary

Test Compound: Gum Guggul Extract

CAS Number: GUMGUGGULEXT

Date Report Requested: 05/01/2017

Time Report Requested: 14:31:55

Lab: NTP

C Number: C20605-01

Cage Range: All

Date Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: All

Study Gender: Both

Experiment Number: C20605-01

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CAS Number: GUMGUGGLEXT

Date Report Requested: 05/01/2017

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Lab: NTP

Males: Day 28 Males

| | Treatment Groups (mg/kg) | | | | | | | | | | | |
|-------------------|--------------------------|--------------------|----------------------|--------------------|--------------------|----------------------|---|------|-----|-----|-----|------|
| | 0 | 62.5 | 125 | 250 | 500 | 1000 | 0 | 62.5 | 125 | 250 | 500 | 1000 |
| Terminal Body Wt. | 299.5 ± 5.5 (10) | 298.4 ± 5.2 (10) | 295.1 ± 7.0 (10) | 297.2 ± 6.9 (10) | 300.5 ± 6.6 (10) | 309.0 ± 5.7 (10) | | | | | | |
| Heart | | | | | | | | | | | | |
| Absolute (g) | 1.13 ± 0.03 (10) | 1.13 ± 0.03 (10) | 1.15 ± 0.03 (10) | 1.18 ± 0.02 (10) | 1.13 ± 0.04 (10) | 1.19 ± 0.03 (10) | | | | | | |
| Relative (mg/g) | 3.78 ± 0.08 (10) | 3.79 ± 0.06 (10) | 3.89 ± 0.10 (10) | 3.99 ± 0.08 (10) | 3.75 ± 0.08 (10) | 3.84 ± 0.05 (10) | | | | | | |
| R. Kidney | | | | | | | | | | | | |
| Absolute (g) | 0.97 ± 0.03 (10) | 0.93 ± 0.02 (10) | 0.95 ± 0.03 (10) | 0.97 ± 0.03 (10) | 0.98 ± 0.04 (10) | 1.10 ± 0.09 (10) | | | | | | |
| Relative (mg/g) | 3.23 ± 0.05 (10) | 3.12 ± 0.06 (10) | 3.23 ± 0.06 (10) | 3.26 ± 0.11 (10) | 3.25 ± 0.07 (10) | 3.53 ± 0.25 (10) | | | | | | |
| Liver | | | | | | | | | | | | |
| Absolute (g) | 12.18 ± 0.40 (10) ** | 12.09 ± 0.33 (10) | 12.39 ± 0.57 (10) | 12.74 ± 0.38 (10) | 13.03 ± 0.62 (10) | 13.98 ± 0.41 (10) ** | | | | | | |
| Relative (mg/g) | 40.61 ± 0.88 (10) ** | 40.47 ± 0.60 (10) | 41.83 ± 1.15 (10) | 42.92 ± 1.19 (10) | 43.17 ± 1.12 (10) | 45.18 ± 0.60 (10) ** | | | | | | |
| Lung | | | | | | | | | | | | |
| Absolute (g) | 2.10 ± 0.17 (10) | 2.08 ± 0.12 (10) | 2.06 ± 0.12 (10) | 1.98 ± 0.09 (10) | 1.92 ± 0.08 (10) | 2.18 ± 0.12 (10) | | | | | | |
| Relative (mg/g) | 6.95 ± 0.45 (10) | 6.94 ± 0.35 (10) | 6.96 ± 0.29 (10) | 6.66 ± 0.24 (10) | 6.38 ± 0.17 (10) | 7.04 ± 0.38 (10) | | | | | | |
| R. Testis | | | | | | | | | | | | |
| Absolute (g) | 1.678 ± 0.025 (10) | 1.765 ± 0.033 (10) | 1.736 ± 0.033 (10) | 1.725 ± 0.040 (10) | 1.721 ± 0.031 (10) | 1.683 ± 0.042 (10) | | | | | | |
| Relative (mg/g) | 5.62 ± 0.12 (10) | 5.92 ± 0.09 (10) | 5.90 ± 0.12 (10) | 5.81 ± 0.08 (10) | 5.74 ± 0.13 (10) | 5.46 ± 0.17 (10) | | | | | | |
| Thymus | | | | | | | | | | | | |
| Absolute (g) | 0.528 ± 0.020 (10) | 0.554 ± 0.021 (10) | 0.421 ± 0.021 (10) * | 0.514 ± 0.034 (10) | 0.516 ± 0.025 (10) | 0.573 ± 0.029 (10) | | | | | | |
| Relative (mg/g) | 1.76 ± 0.04 (10) | 1.86 ± 0.07 (10) | 1.44 ± 0.09 (10) * | 1.72 ± 0.08 (10) | 1.72 ± 0.07 (10) | 1.85 ± 0.08 (10) | | | | | | |

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PA06: Organ Weights Summary

Test Compound: Gum Guggul Extract

CAS Number: GUMGUGGLEXT

Date Report Requested: 05/01/2017

Time Report Requested: 14:31:55

Lab: NTP

Females: Day 28 Females

| | Treatment Groups (mg/kg) | | | | | | | | | | | |
|-------------------|--------------------------|--------------------|---------------------|----------------------|----------------------|----------------------|---|------|-----|-----|-----|------|
| | 0 | 62.5 | 125 | 250 | 500 | 1000 | 0 | 62.5 | 125 | 250 | 500 | 1000 |
| Terminal Body Wt. | 196.3 ± 2.4 (10) | 191.9 ± 4.2 (10) | 188.6 ± 4.2 (10) | 188.4 ± 4.8 (10) | 199.2 ± 3.6 (10) | 200.7 ± 4.5 (10) | | | | | | |
| Heart | | | | | | | | | | | | |
| Absolute (g) | 0.80 ± 0.01 (10) | 0.80 ± 0.02 (10) | 0.77 ± 0.02 (10) | 0.80 ± 0.03 (10) | 0.81 ± 0.02 (10) | 0.83 ± 0.02 (10) | | | | | | |
| Relative (mg/g) | 4.06 ± 0.09 (10) | 4.15 ± 0.07 (10) | 4.08 ± 0.09 (10) | 4.26 ± 0.09 (10) | 4.06 ± 0.09 (10) | 4.15 ± 0.08 (10) | | | | | | |
| R. Kidney | | | | | | | | | | | | |
| Absolute (g) | 0.64 ± 0.01 (10) * | 0.65 ± 0.01 (10) | 0.63 ± 0.02 (10) | 0.65 ± 0.02 (10) | 0.65 ± 0.01 (10) | 0.71 ± 0.03 (10) * | | | | | | |
| Relative (mg/g) | 3.25 ± 0.07 (10) | 3.42 ± 0.06 (10) | 3.32 ± 0.08 (10) | 3.44 ± 0.06 (10) | 3.28 ± 0.04 (10) | 3.51 ± 0.07 (10) * | | | | | | |
| Liver | | | | | | | | | | | | |
| Absolute (g) | 7.89 ± 0.13 (10) ** | 8.12 ± 0.25 (10) | 8.12 ± 0.30 (10) | 8.58 ± 0.39 (10) | 9.18 ± 0.21 (10) ** | 10.27 ± 0.31 (10) ** | | | | | | |
| Relative (mg/g) | 40.18 ± 0.50 (10) ** | 42.28 ± 0.69 (10) | 42.96 ± 0.95 (10) * | 45.34 ± 1.02 (10) ** | 46.08 ± 0.62 (10) ** | 51.10 ± 0.66 (10) ** | | | | | | |
| Lung | | | | | | | | | | | | |
| Absolute (g) | 1.56 ± 0.09 (10) | 1.52 ± 0.11 (10) | 1.48 ± 0.06 (10) | 1.39 ± 0.07 (10) | 1.49 ± 0.07 (10) | 1.51 ± 0.05 (10) | | | | | | |
| Relative (mg/g) | 7.93 ± 0.42 (10) | 7.93 ± 0.59 (10) | 7.88 ± 0.41 (10) | 7.36 ± 0.33 (10) | 7.52 ± 0.38 (10) | 7.54 ± 0.26 (10) | | | | | | |
| Thymus | | | | | | | | | | | | |
| Absolute (g) | 0.354 ± 0.011 (10) | 0.369 ± 0.027 (10) | 0.358 ± 0.019 (10) | 0.358 ± 0.018 (10) | 0.351 ± 0.018 (10) | 0.362 ± 0.012 (10) | | | | | | |
| Relative (mg/g) | 1.81 ± 0.06 (10) | 1.91 ± 0.12 (10) | 1.90 ± 0.10 (10) | 1.90 ± 0.07 (10) | 1.77 ± 0.09 (10) | 1.81 ± 0.06 (10) | | | | | | |

Experiment Number: C20605-01

Test Type: TOX

Route: Oral Gavage

Species/Strain: Rat/Harlan Sprague Dawley

PA06: Organ Weights Summary

Test Compound: Gum Guggul Extract

CAS Number: GUMGUGGLEXT

Date Report Requested: 05/01/2017

Time Report Requested: 14:31:55

Lab: NTP

Males: Day 92 Males

| | Treatment Groups (mg/kg) | | | | | | | | | | | |
|-------------------|--------------------------|--------------------|--------------------|----------------------|----------------------|----------------------|---|------|-----|-----|-----|------|
| | 0 | 62.5 | 125 | 250 | 500 | 1000 | 0 | 62.5 | 125 | 250 | 500 | 1000 |
| Terminal Body Wt. | 406.9 ± 13.5 (10) | 421.6 ± 8.8 (10) | 409.1 ± 8.6 (10) | 407.6 ± 9.0 (10) | 405.6 ± 9.6 (10) | 404.3 ± 7.2 (10) | | | | | | |
| Heart | | | | | | | | | | | | |
| Absolute (g) | 1.38 ± 0.04 (10) | 1.45 ± 0.03 (10) | 1.39 ± 0.04 (10) | 1.41 ± 0.03 (10) | 1.39 ± 0.05 (10) | 1.41 ± 0.04 (10) | | | | | | |
| Relative (mg/g) | 3.41 ± 0.08 (10) | 3.44 ± 0.05 (10) | 3.39 ± 0.06 (10) | 3.47 ± 0.06 (10) | 3.43 ± 0.10 (10) | 3.48 ± 0.08 (10) | | | | | | |
| R. Kidney | | | | | | | | | | | | |
| Absolute (g) | 1.13 ± 0.04 (10) | 1.18 ± 0.02 (10) | 1.16 ± 0.04 (10) | 1.16 ± 0.03 (10) | 1.17 ± 0.04 (10) | 1.23 ± 0.03 (10) | | | | | | |
| Relative (mg/g) | 2.78 ± 0.05 (10) ** | 2.80 ± 0.04 (10) | 2.82 ± 0.06 (10) | 2.86 ± 0.06 (10) | 2.88 ± 0.07 (10) | 3.03 ± 0.04 (10) ** | | | | | | |
| Liver | | | | | | | | | | | | |
| Absolute (g) | 13.22 ± 0.56 (10) ** | 14.20 ± 0.37 (10) | 13.72 ± 0.34 (10) | 14.15 ± 0.48 (10) | 14.27 ± 0.48 (10) | 15.91 ± 0.48 (10) ** | | | | | | |
| Relative (mg/g) | 32.42 ± 0.40 (10) ** | 33.66 ± 0.42 (10) | 33.53 ± 0.40 (10) | 34.65 ± 0.57 (10) ** | 35.14 ± 0.65 (10) ** | 39.28 ± 0.61 (10) ** | | | | | | |
| Lung | | | | | | | | | | | | |
| Absolute (g) | 2.21 ± 0.11 (9) | 2.32 ± 0.17 (10) | 2.38 ± 0.13 (10) | 2.33 ± 0.11 (10) | 2.30 ± 0.11 (10) | 2.27 ± 0.14 (10) | | | | | | |
| Relative (mg/g) | 5.47 ± 0.22 (9) | 5.50 ± 0.39 (10) | 5.82 ± 0.27 (10) | 5.71 ± 0.22 (10) | 5.65 ± 0.20 (10) | 5.60 ± 0.30 (10) | | | | | | |
| R. Testis | | | | | | | | | | | | |
| Absolute (g) | 1.886 ± 0.046 (10) | 1.891 ± 0.037 (10) | 1.909 ± 0.064 (10) | 1.873 ± 0.042 (10) | 1.864 ± 0.050 (10) | 1.885 ± 0.042 (10) | | | | | | |
| Relative (mg/g) | 4.66 ± 0.10 (10) | 4.49 ± 0.09 (10) | 4.67 ± 0.14 (10) | 4.61 ± 0.13 (10) | 4.60 ± 0.10 (10) | 4.67 ± 0.10 (10) | | | | | | |
| Thymus | | | | | | | | | | | | |
| Absolute (g) | 0.347 ± 0.022 (10) * | 0.325 ± 0.015 (10) | 0.329 ± 0.030 (10) | 0.316 ± 0.018 (10) | 0.309 ± 0.018 (10) | 0.268 ± 0.017 (10) * | | | | | | |
| Relative (mg/g) | 0.85 ± 0.04 (10) * | 0.77 ± 0.03 (10) | 0.81 ± 0.08 (10) | 0.77 ± 0.04 (10) | 0.76 ± 0.04 (10) | 0.66 ± 0.04 (10) * | | | | | | |

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Species/Strain: Rat/Harlan Sprague Dawley

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Test Compound: Gum Guggul Extract

CAS Number: GUMGUGGLEXT

Date Report Requested: 05/01/2017

Time Report Requested: 14:31:55

Lab: NTP

Females: Day 92 Females

| | Treatment Groups (mg/kg) | | | | | | | | | | | | | | | | | |
|-------------------|--------------------------|---------|--------|-------|---------|------|-------|---------|-----|-------|---------|------|-------|---------|--------|-------|---------|---------|
| | 0 | | | 62.5 | | | 125 | | | 250 | | | 500 | | | 1000 | | |
| Terminal Body Wt. | 245.9 | ± 5.9 | (9) | 255.2 | ± 8.0 | (10) | 248.7 | ± 3.9 | (9) | 241.9 | ± 4.0 | (10) | 247.0 | ± 4.5 | (9) | 257.2 | ± 7.0 | (10) |
| Heart | | | | | | | | | | | | | | | | | | |
| Absolute (g) | 0.93 | ± 0.02 | (9) * | 0.93 | ± 0.04 | (10) | 0.90 | ± 0.02 | (9) | 0.96 | ± 0.02 | (10) | 0.96 | ± 0.02 | (9) | 0.99 | ± 0.03 | (10) |
| Relative (mg/g) | 3.79 | ± 0.08 | (9) ** | 3.63 | ± 0.05 | (10) | 3.63 | ± 0.05 | (9) | 3.99 | ± 0.08 | (10) | 3.90 | ± 0.05 | (9) | 3.86 | ± 0.09 | (10) |
| R. Kidney | | | | | | | | | | | | | | | | | | |
| Absolute (g) | 0.75 | ± 0.02 | (9) * | 0.74 | ± 0.02 | (10) | 0.73 | ± 0.01 | (9) | 0.74 | ± 0.01 | (10) | 0.79 | ± 0.02 | (9) | 0.79 | ± 0.01 | (10) |
| Relative (mg/g) | 3.07 | ± 0.07 | (9) * | 2.89 | ± 0.03 | (10) | 2.92 | ± 0.05 | (9) | 3.05 | ± 0.07 | (10) | 3.18 | ± 0.06 | (9) | 3.07 | ± 0.07 | (10) |
| Liver | | | | | | | | | | | | | | | | | | |
| Absolute (g) | 8.27 | ± 0.27 | (9) ** | 8.88 | ± 0.39 | (10) | 8.72 | ± 0.34 | (9) | 8.85 | ± 0.21 | (10) | 10.36 | ± 0.53 | (9) ** | 11.83 | ± 0.46 | (10) ** |
| Relative (mg/g) | 33.65 | ± 0.79 | (9) ** | 34.72 | ± 0.77 | (10) | 35.02 | ± 1.08 | (9) | 36.62 | ± 0.72 | (10) | 41.87 | ± 1.74 | (9) ** | 45.98 | ± 1.07 | (10) ** |
| Lung | | | | | | | | | | | | | | | | | | |
| Absolute (g) | 1.72 | ± 0.10 | (9) | 1.71 | ± 0.08 | (10) | 1.59 | ± 0.11 | (9) | 1.68 | ± 0.05 | (10) | 1.81 | ± 0.10 | (9) | 1.70 | ± 0.05 | (10) |
| Relative (mg/g) | 6.98 | ± 0.32 | (9) | 6.73 | ± 0.25 | (10) | 6.35 | ± 0.36 | (9) | 6.94 | ± 0.19 | (10) | 7.35 | ± 0.42 | (9) | 6.64 | ± 0.18 | (10) |
| Thymus | | | | | | | | | | | | | | | | | | |
| Absolute (g) | 0.217 | ± 0.022 | (9) | 0.262 | ± 0.010 | (10) | 0.232 | ± 0.017 | (9) | 0.234 | ± 0.010 | (10) | 0.207 | ± 0.014 | (9) | 0.241 | ± 0.016 | (10) |
| Relative (mg/g) | 0.88 | ± 0.08 | (9) | 1.03 | ± 0.05 | (10) | 0.93 | ± 0.06 | (9) | 0.97 | ± 0.05 | (10) | 0.83 | ± 0.05 | (9) | 0.93 | ± 0.05 | (10) |

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LEGEND

Data are displayed as mean \pm SEM (N)

Relative organ weights (organ-weight-to-body-weight ratios) are given as mg organ weight/g body weight

Statistical analysis performed by Jonchkeere (trend) and William or Dunnett (pairwise) tests

Statistical significance for the control group indicates a significant trend test

Statistical significance for a treatment group indicates a significant pairwise test compared to the vehicle control group

* Statistically significant at $P \leq 0.05$

** Statistically significant at $P \leq 0.01$

** END OF REPORT **