**Supplementary Table S1:**

**DBShocks:**

|  |  |  |
| --- | --- | --- |
| **Combination** | ***p*-value** | |
| **KWII** | **Poisson Regression** |
| DXWox30|DBShocks | 0.0047 | 0.039 |
| D14Rat71|DBShocks | 0.013 | 0.072 |
| D9Rat75|DBShocks | 0.048 | 0.149 |
| D5Rat51|DBShocks | 0.036 | 0.135 |
| Sex|DBShocks | 0.023 | 0.069 |

**Cecum\_Score:**

|  |  |  |
| --- | --- | --- |
| **Combination** | ***p*-value** | |
| **KWII** | **Poisson Regression** |
| Diarrhea|Cecum\_Score | <0.0001 | <0.0001 |
| D3Mit348|Cecum\_Score | <0.0001 | <0.0001 |
| D3Mit189|Cecum\_Score | <0.0001 | <0.0001 |
| D3Mit212|Cecum\_Score | 0.0001 | <0.0001 |
| D3Mit19|Cecum\_Score | 0.0001 | 0.001 |
| D8Mit94|D18Mit124|Cecum\_Score | <0.0001 | 0.002\* |
| D4Mit178|D8Mit112|Cecum\_Score | 0.0006 | 0.002\* |
| D3Mit348|D18Mit7|Cecum\_Score | 0.0008 | 0.014\* |
| D4Mit108|D17Mit88|Cecum\_Score | 0.0012 | 0.004\* |
| D2Mit237|D3Mit348|Cecum\_Score | 0.0043 | 0.021\* |

\*-second-order combination p-values for regression were derived from a model consisting of terms for main effects and the interaction.