**Model Name**
Escherichia coli (ATCC 25922), Thigh Infection Model, CFU/g

**Item Number**
608330

**Introduction**
This assay assesses the antimicrobial efficacy of test articles in a thigh muscle infection model. The microbial counts in tissue are measured. Strain ATCC 25922 is an antibiotic susceptible laboratory strain that is frequently used for in vitro MIC testing and efficacy testing in mice.

**Procedure Summary**
Groups of 5 neutropenic mice are used. Animals are intramuscularly inoculated with pathogen suspension then test articles or vehicle are administered at time points after inoculation. (Doses may be administered IV, SC, PO, IM, IP or by IV infusion.) At 24 hr after the first treatment, animals are humanely euthanized and tissue is aseptically removed. Tissue is homogenized and pathogen counts are determined by plating to agar medium. Pathogen counts from treatment groups are compared to vehicle groups and the significance of an effect is determined.

**Turnaround Time(s)**
5 weeks from sample receipt

**Literature**
DeRyke CA et al., Antimicrobial Agents and Chemotherapy 51:1481-1486, 2007

**Optional Services**
Analysis of cytokines (with Luminex) and PK exposure can be performed upon request.

**Related Assay(s) (Item # - Assay Name - Species)**
610100* - Escherichia coli (ATCC 25922) MIC - Bacteria
608310 - Escherichia coli (ATCC 25922), Peritonitis, LD90-100 - Mouse
*provided by partner lab Eurofins Pharma Discovery Services

**Modified Protocols**
We will readily accommodate client-specified alterations.

**Laboratory**
These assays are performed at our AAALAC accredited BSL2 laboratory in Taipei, Taiwan.

**Animal Welfare**
All aspects of this work is performed in general accordance with the Guide for the Care and Use of laboratory animals (National Academy Press, Washington, DC, 2011). The study protocol was approved by the Pharmacology Discovery Services IACUC and is performed with the oversight of veterinarians to assure the humane treatment of laboratory animals.

**Reference Compound(s)**
Gentamicin

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608330 *Escherichia coli* (ATCC 25922), Thigh Infection Model, CFU/g
Gentamicin (GEN) titration

![Graph](image-url)

**Log (CFU/g) thigh**

- Initial counts, 2 hr
- Vehicle, 26 hr
- GEN, 30 mpk, SC, BID
- GEN, 10 mpk, SC, BID
- GEN, 3 mpk, SC, QID
- GEN, 1 mpk, SC, QID

**P=0.0002**

Last modified November 20, 2017

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