Model Name
Pseudomonas aeruginosa (ATCC 27853), Lung Infection Model, CFU/g

Item Number
608640

Introduction
This assay assesses the antimicrobial efficacy of test articles in a lung infection model. The microbial counts in tissue are measured. P. aeruginosa strain ATCC 27853 is the CLSI reference standard for in vitro susceptibility testing of antimicrobial agents. It is virulent in mice and commonly used for in vivo efficacy analysis.

Procedure Summary
Groups of 5 neutropenic mice are used. Animals are 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 hours 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
5 weeks from sample receipt

Literature
Tsai WC. et al., Am J Respir Crit Care Med. 170:1331–1339, 2004

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

Related Assay(s) (Item # - Assay Name - Species)
614030* - Pseudomonas aeruginosa (ATCC 27853) MIC – Bacteria
608620 - Pseudomonas aeruginosa (ATCC 27853), Peritonitis, LD90-100 - Mouse
608650 - Pseudomonas aeruginosa (ATCC 27853), Thigh Infection Model, CFU/g – 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.

For current details about our Company address and contact information, please reference our website http://www.pharmacologydiscoveryservices.com/company-info/
Reference Compounds
Gentamicin, Levofloxacin

Graph

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