Model Name
Streptococcus pneumoniae (ATCC 6303), Lung Infection Model, CFU/g

Item Number
608095

Introduction
This model assesses the efficacy of test articles at protecting against a lethal peritonitis infection. It can be used to evaluate small molecules, vaccines and biologics. *Streptococcus pneumoniae* is a major cause of common respiratory diseases such as bronchitis and sinusitis as well as life threatening diseases including pneumonia, and septicemia.

Procedure Summary
Groups of 5 immune competent mice are used. Animals are intranasally 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 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)
6 weeks from sample receipt

Literature
Fukuda Y. et al., Antimicrobial Agents and Chemotherapy 50:121-125, 2006

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

Related Assay(s) (Item # - Assay Name - Species)
603900* - Streptococcus pneumoniae (ATCC 6301) MIC – Bacteria
608100 - Streptococcus pneumoniae (ATCC 6301), Lung Infection Model, 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)
Ceftriaxone

Last modified February 20, 2018

For current details about our Company address and contact information, please reference our website [http://www.pharmacologydiscoveryservices.com/company-info/](http://www.pharmacologydiscoveryservices.com/company-info/)