**Model Name**  
Staphylococcus aureus VRSA (VRS-2), Thigh Infection Model, CFU/g

**Item Number**  
608180

**Introduction**  
This model assesses the antimicrobial efficacy of test articles in a tissue infection model with vancomycin resistant MRSA. Microbial counts are measured. S. aureus strain VRS-2, VRSA strain Hershey, is a Van-A producing SCC Mec II, st5 strain that was isolated from the foot ulcer of a 70-year-old patient. It is methicillin-resistant with resistance to carbapenems, cephalosporins and penicillins. VRS-2 is resistant to vancomycin (MIC >64), quinolones (LVX-R, CIP-R), macrolides (ERY-R, CLI-R), and trimethoprim sulfamethoxazole.

**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**  

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

**Related Assay(s)  (Item # - Assay Name - Species)**  
604147* - Staphylococcus aureus, VanA MRSA (VRS2) MIC - Bacteria  
*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)**  
Linezolid

---

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

Graph(s)

Last modified June 13, 2018