

In vivo* Pharmacology: Thigh Infection Model in Healthy and Neutropenic Mice Induced by ESBL Producing *Klebsiella Pneumoniae

Species, strain, sex:	mouse, C57Bl/6, male
Number of animals per group:	n=8
Pharmacological control:	Meropenem
Strain:	<i>K. pneumoniae</i> 1470 (ESBL producing clinical isolate)
Treatment mode:	therapeutic
Duration of dosing:	24h
Induction of neutropenia:	Cyclophosphamide IP, D-4 and D-1

Thigh infection model is widely used animal model of infection characterized by versatility and simplicity. The model provides a sensitive and reproducible experimental infection for evaluation of antimicrobial efficacy. Furthermore, it allows a simultaneous measurement of drug concentrations in serum and/or tissue of infected animal.

Main read-outs:

- CFUs in thigh muscle

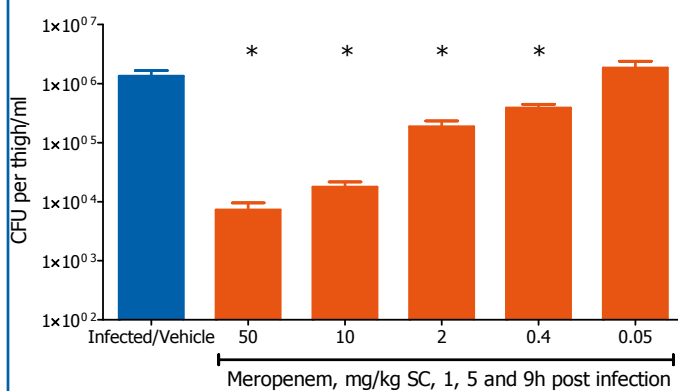
Facultative read outs:

- concentration of test compounds in serum and/or thigh muscle

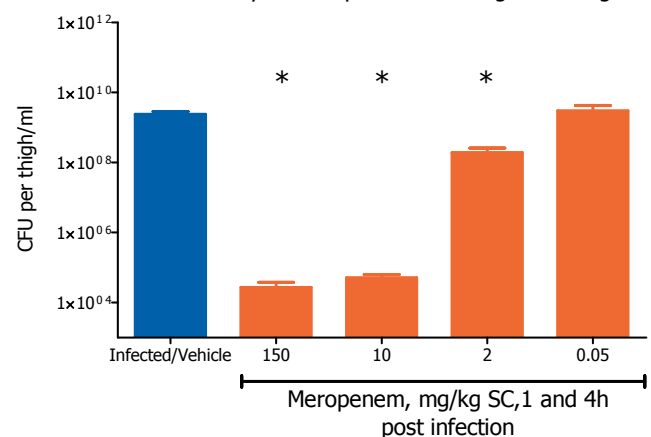
Basic study design:

- 0h: intramuscular infection
- 1h: start of treatment
- 24h: sacrificing and thigh muscle sampling

Klebsiella pneumoniae thigh infection in healthy mice
Efficacy of Meropenem following SC dosing



Klebsiella pneumoniae thigh infection in neutropenic mice
Efficacy of Meropenem following SC dosing



*p<0.05 vs. Infected/Vehicle; Mann Whitney test

Models of infection with other bacteria of interest can be developed on request , using bacterial isolates from our collection or provided by the Client.