



Klebsiella pneumoniae – Intestinal colonization

Procedure Summary

- Immunocompetent swiss mice, eight weeks old females
- *Klebsiella pneumoniae* PUG-2 strain (clinical isolate)
- Resistance to Cefotaxime (CTX) due to plasmidic *blaDHA-1* gene (class C) and to the lack of OmpK36 outer-membrane protein
- Bacterial challenge by oral route
- Reference compound: Cefotaxime (SC)

Experimental readouts

- Fecal CFU determination of PUG-2 strain
- Measurement of intragastric pH
- Weight loss
- CTX measurement in faeces
- Survival rate
- Clinical score

Optional Services

- Microbiote analysis
- Histology

Literature / reference

- Grall *et al.*, Antimicrob. Agents Chemother. 2013 “Oral DAV131, a Charcoal-Based Adsorbent, Inhibits Intestinal Colonization by β -Lactam-Resistant *Klebsiella pneumoniae* in Cefotaxime-Treated Mice”
- Internal data

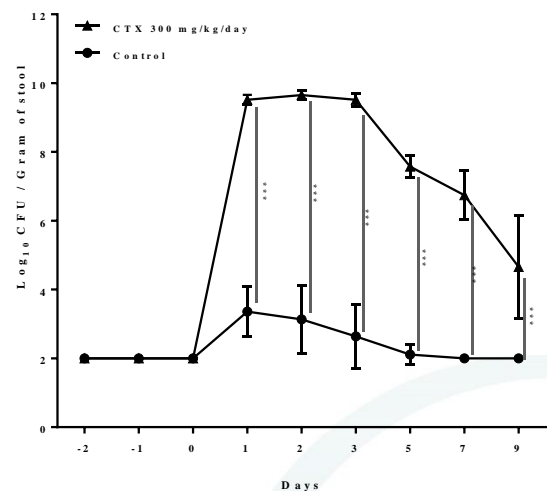
Animal Welfare

- Each experimental protocol is approved by the local ethics committee for animal experimentation of Grand Campus Dijon (Burgundy, France) and performed in accordance to the current recommendations of the European Institute of Health EU Directive 86/609

Facilities

- These assays are performed at our BSL2 laboratory / zootechnical center in Dijon, France

Residual bacterial load (in Log_{10} CFU/g) in faeces of untreated and CTX-treated mice infected with *Klebsiella pneumoniae* PUG-2 strain ($p < 0.001^{***}$).



Our scientific team will readily accommodate client-specific alterations and will provide expert advice and guidance for your efficacy studies

For more information please contact : info@vivexia.fr