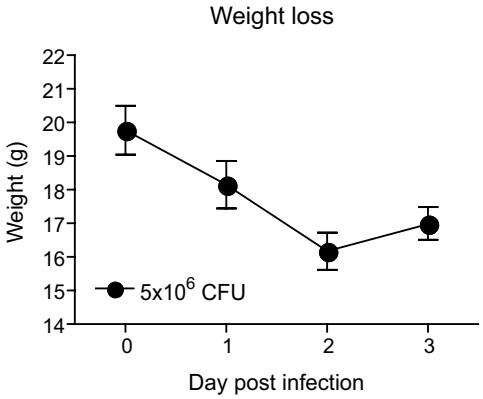
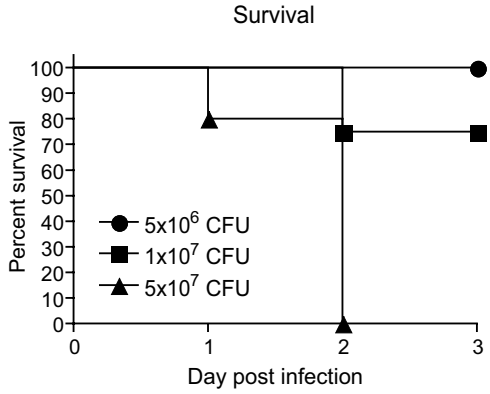
preclin biosystems

your partner in drug validation





Pseudomonas aeruginosa:

Pseudomonas aeruginosa is a gram-negative bacterium, an opportunistic pathogen and a major cause of hospital-acquired infection. This pathogen accounts for approximately 10% of all nosocomial infections, contributing significantly to an estimated USD 20 billion annual cost burden caused by hospital acquired infections. The pathogen is frequently involved in causing diseases such as urinary tract infection, ventilator associated pneumonia, or surgical site infection. Patients suffering from cystic fibrosis (CF) are highly susceptible to infection and P. aeruginosa is tightly linked with lung transplant rejection and Bronchiolitis Obliterans Syndrome (BOS). Although the bacteria is classified as an aerobic organism, its adaptation to the anaerobic environment within the thickened mucus found in the lungs of CF patients causes chronic destructive lung disease, frequently leading to death. Due to the bacteria's ubiquitous and heterogenic nature, the development of effective treatment regimens targeting it have been challenging. Antibiotic resistance has become widespread, resulting in the urgent need to develop novel treatment strategies, as well as the validation of therapeutics and vaccines.

Experimental readouts:

- Bacterial load in tissue
- Morbidity and mortality
- Inflammatory cell analysis
- Quantitative PCR analysis of tissue cytokines and chemokines

Duration:

1-10 days dependent upon experimental readouts

Service Package I is available alone, or in combination with Service Packages II and III

Our scientific project managers can provide expert advice and guidance for all of your efficiacy studies.

Please contact us for customized Service Packages
info@preclinbiosystems.com

Service Package I

- Administration of test compounds
- Initiation of disease model
- Determination of bacterial load in tissue

Service Package II

- Measurement and analysis of cellular infiltrates
- Morbidity and mortality

Service Package III

- Quantitative PCR analysis of tissue cytokines and chemokines