Model Name
Aspergillus fumigatus (ATCC 13073), Systemic (IV) Infection, LD90-100

Item Number
609100

Introduction
This model assesses the efficacy of test articles at protecting against a lethal disseminated infection model of aspergillosis with immune suppressed mice. The procedure is commonly used to evaluate small molecules. Aspergillus fumigatus is an environmental fungus that may cause serious respiratory and disseminated infections in severely immune compromised humans such as organ and bone marrow transplant recipients and cancer patients.

Procedure Summary
Groups of 10 neutropenic mice are used. Each animal is inoculated with an intravenous administered lethal (LD90-100) dose of pathogen. Test substance and vehicle are administered at specified time points following infection. Mortality is recorded daily during the following 10 days. Prevention of mortality in 50 percent or more (>50%) of the animals indicates significant activity. The Minimum Effective Dose (MED) is defined as the dose that results in survival of 50% (or more) of the test animals.

Turnaround Time(s)
6 weeks from sample receipt

Literature

Optional Services
qPCR quantification of A. fumigatus in tissue can be performed upon request. Measurement of cytokines can be performed upon request.

Related Assay(s) (Item # - Assay Name - Species)
640110* - Aspergillus fumigatus (ATCC 13073) MIC - Fungi
*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)
Amphotericin B
609100 *A. fumigatus* ATCC13073 blood stream infection
Amphotericin B (AM-B) treatment

![Graph](image)

- **Vehicle, IP, bid x 5 days**
- **AM-B 3 mg/kg IP, bid x 5 days**
- **AM-B 0.3 mg/kg IP, bid x 5 days**

Last modified November 20, 2017