Model Name
Hepatotoxicity

Item Number
546110

Introduction
The level of serum alanine aminotransferase (ALT), aspartate aminotransferase (AST) and total bilirubin activity reflects damage to hepatocytes and is considered to be a highly sensitive and fairly specific preclinical and clinical biomarker of hepatotoxicity.

Procedure Summary
Test substance is administered by oral gavage to a group of 6 ICR derived male or female mice weighing 24 ± 2 g. After 24 hours, serum alanine aminotransferase (ALT), aspartate aminotransferase (AST) and Total bilirubin activity are determined for each animal by an optimized UV method. One-way ANOVA followed by Dunnett's test is used to determine the significant difference between treated and vehicle groups. Differences are considered statistical significance at P < 0.05.

Suggested Testing
- n=6/group (study design dependent)
- Doses may be administered PO, IV, IP and SC

Turnaround Time(s)
- For Acute Assays: 4 weeks from sample receipt
- For Subacute Assays: 6 weeks to 3 months

Literature

Related Assay(s)  (Item # - Assay Name - Species)
546040 - Hepatic Injury, Acetaminophen (APAP) - Mouse
546030 - Hepatic Injury, Concanavalin A, Mouse - Mouse

Modified Protocols
We will readily accommodate client-specified alterations.

Laboratory
These assays are performed at our AAALAC accredited laboratory in Taipei.

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)
* Acetaminophen, Atropine

Last modified November 20, 2017