Model Name
Hepatic Injury, Nonalcoholic Steatohepatitis (NASH), MCD Diet-Induced, Mouse

Item Number
546080

Introduction
Nonalcoholic steatohepatitis (NASH) is a type of nonalcoholic fatty liver disease (NAFLD). Feeding mice with a methionine choline deficient (MCD) diet is a frequently used NASH model that induces aminotransferase elevation and hepatic histological changes. This model is applied to evaluate the anti-inflammatory and anti-fibrotic efficacy of test articles for hepatic inflammation and fibrosis in mice.

Procedure Summary
Male C57BL/6 mice at 9-10 weeks of age are used (10 mice/group). Mice are fed methionine choline deficient (MCD) diet or control diet for 4 or 8 weeks. Vehicle and test articles are administered orally by gavage to mice daily during the 4 or 8 weeks of diet feeding. Body weight, liver weight, biochemical analysis, and histological changes are assessed after 4 or 8 weeks of MCD diet feeding.

Suggested Testing
• n=10/group (study design dependent)
• Doses may be administered PO, IV, IP, and SC
• Assessments available: Body weight, ALT, AST, ALP, T-BIL and ALB levels, Liver weight, Biomarker analysis (protein or mRNA) and Histopathology

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)
546050 - Hepatic Injury, Liver Fibrosis, Chronic, Carbon Tetrachloride (CCI4) with Phenobarbital-Induced - Rat
546030 - Hepatic Injury, Concanavalin A-Induced - 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 are 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
Pioglitazone

Graph

For current details about our Company address and contact information, please reference our website
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