Model Name
Diabetes, Type I, Streptozotocin-Induced, Rat

Item Number
541010

Introduction
Streptozotocin (STZ) is currently the most used diabetogenic agent in new anti-diabetic drugs in experimental animals. This study aims to evaluate the therapeutic efficacy of STZ induced different glucose response.

Procedure Summary
Test substance is administered orally (PO) to a group of 6 Wistar derived male or female rats weighing 250 ± 50 g, 48 hours after challenge with streptozotocin (65 mg/kg i.v.). Serum glucose is determined by an optimized UV method with an automated analyzer (TBA-120-FR, Toshiba, Japan) from orbital sinus blood samples, obtained from each non-fasted animal, 5 minutes before and 90 minutes after test substance administration. ANOVA followed by Dunnett’s test is applied for comparison between vehicle control and compound treated groups. Differences are considered significant 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)
541000 – Diabetes, Type I, Streptozotocin-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.

For current details about our Company address and contact information, please reference our website
http://www.pharmacologydiscoveryservices.com/company-info/
Reference Compounds
Acarbose, Glibenclamide, *Insulin (s.c.), Tolbutamide, Metformin

Graph

![Graph showing serum glucose levels](image)

*P<0.05, treated vs. vehicle control; one-way ANOVA followed by Dunnets test.

Last modified October 1, 2018