Model Name
Glucose, Serum, Starch-Loaded

Item Number
541500

Introduction
The glucose tolerance test is a medical test in which glucose is given and blood samples taken afterward to determine how quickly it is cleared from the blood. The test is usually used to test for diabetes, insulin resistance, impaired beta cell function, and sometimes reactive hypoglycaemia and acromegaly, or rarer disorders of carbohydrate metabolism.

Procedure Summary
Test substance is administered by oral gavage to a group of 6 ICR derived male or female overnight-fasted mice weighing 22 ± 2 g, 30 minutes before starch (2.5 g/kg, PO) and blood samples are obtained 90 minutes later. Blood is collected from tail vein and the blood glucose is measured by a Glucometer (OptiumTM XceedTM Diabetes Monitoring System, Abbott). One-way ANOVA followed by Dunnett’s test is employed to ascertain significant difference between treatment groups and vehicle. Significant difference is considered 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
Ho RS and Aranda CG. Arch Int Pharmacodyn. 237:98, 1979

Related Assay(s)  (Item # - Assay Name - Species)
N/A

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)
*Acarbose, Glibenclamide, Insulin (s.c.), Tolbutamide, Metformin, Troglitazone

Last modified November 20, 2017