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Working

U Mass - Insulin clearance

Jason Kim[1]

[1]University of Massachusetts

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Mouse Metabolic Phenotyping Centers

Tech. support email: **info@mmpc.org**

Lili Liang

ABSTRACT

Summary:

Insulin clearance test measure systemic clearance of insulin following a bolus injection. Liver accounts for the majority of systemic insulin clearance following secretion from pancreatic β- cells into portal circulation. Hepatic clearance of insulin may be affected by obesity and in other mouse models of altered metabolism. Alterations in insulin clearance may also affect glucose and lipid metabolism.

EXTERNAL LINK

http://mmpc.org/shared/document.aspx?id=140&docType=Protocol

MATERIALS

NAME	CATALOG #	VENDOR	CAS NUMBER	RRID
Insulin	Regular human insulin, U-100	Novolin		
Insulin Ultrasensitive ELIZA	80-INSMSU-E01	Alpco		AB_2792981

MATERIALS TEXT

Note:

Cite this, **Alpco Diagnostics Cat# 80-INSMSU-E01, RRID:AB_2792981**

1 Mice are fasted for 5 hours prior to the start of experiment.

2 Collect plasma sample (20 µl) before the start of experiment (basal-0 min) to measurebasal insulin and glucose levels.

3 Administer intraperitoneal injection of insulin (0.5 or 0.75 unit/kg body weight) using aninsulin syringe.

4 Collect plasma samples (10 µl) at 10, 20, 30, 60, 90 and 120 min for the measurement ofplasma insulin concentrations.

5 For data analysis, plasma insulin levels vs. time after insulin injection are plotted, andarea-under-curve may be calculated to estimate systemic insulin clearance.