

Intraperitoneal Insulin Tolerance Test

(Case Western Reserve University)

Summary: This is the standard protocol for routine insulin tolerance testing. It is performed on awake mice, fasted for 18 hr (overnight) or for 6 hours.

Reagents and Materials:

Reagent/Material	Quantity Required	Vendor	Stock Number
Insulin	0.75U-1.0U per mouse	Eli Lilly	
1cc syringe 26g	1/mouse	BD	
Glucometer Alphatrak	1	Abbott	cfgs185-m0285
Alpha trak2 Glucose strips	5 per mouse	Abbott	
Clotisol	100ul	Amazon	T212002

Protocol:

1. Fast mice for overnight or for 6 hours. Remove mouse from cage and put into a clean cage with water and no food.
2. Label the mice using a marker on their tail to quickly tell them apart
3. Weigh each mouse and record weight. Calculate the amount of insulin needed for 0.75U to 1.0 U /kg body weight. Record the volume for each mouse.
4. Dilute the stock of insulin (100U/ml) to 0.1u/ml
5. Take a glucose reading and record it as time zero. Dip tail into clotisol to clot blood.
6. Inject each mouse 3' apart. Repeat #4 at 15min, 30 min, 60 min after IP injection of insulin.
7. Return mice to cage with food.