

GTT and ITT

Materials:

1. Sterilized glucose solution 10 mg/ml.
2. Insulin solution 3.75 U/ml.
3. Glucometer and strips
4. Bupivacaine (0.25%)

I. Glucose tolerance test:

1. Fasting mice overnight for about 16 hours.
2. Weight each mouse and calculate glucose dose for 2 mg/kg body weight. Glucose water solution should be prepared at concentration of 10 mg/ml in advance.
3. Measure blood glucose of each mouse to get the value for 0 time point. Blood glucose level will be determined by glucometer in tail vein blood. Tail snipping is used to get blood. Before snips, the tail end will be dipped into Bupivacaine (0.25%) for local anesthesia to reduce pain.
4. Inject glucose at 2 mg/kg body weight in 0.2 ml solution into peritoneal of mouse.
5. Blood glucose is measured at 15, 30, 45, 60, 90 and 120 minutes after the glucose injection.

II. Insulin tolerance test:

1. Mice are fasted for four hours.
2. Weight each mouse and calculate insulin dose for 0.75 U/kg body weight. Insulin is prepared at 3.75 U/ml in advance.
3. Measure blood glucose of each mouse to get the value for 0 time point. Blood glucose level will be determined by glucometer in blood from tail vein. Tail snipping is used to get blood. Before snips, the tail end will be dipped into Bupivacaine (0.25%) for local anesthesia to reduce pain.
4. Inject insulin at 0.75 U/kg body weight in 0.2 ml solution into peritoneal of mouse.
5. Blood glucose is measured at 15, 30, 45, 60, 90 and 120 minutes after the insulin injection.