Intraperitoneal Glucose Tolerance Testing (IPGTT)

Version: 1.0
Replaced by version: N/A
Edited by: Donald McClain

Summary: This is the standard protocol for most routine glucose tolerance testing. It is performed on awake mice, fasted for 6 hr.

Reagents and Materials:

<table>
<thead>
<tr>
<th>Reagent/Material</th>
<th>Quantity Required</th>
<th>Vendor</th>
<th>Stock Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-Glucose stock, 100 mg/ml in saline</td>
<td>10 µl/g body weight</td>
<td>Any</td>
<td></td>
</tr>
<tr>
<td>1 cc syringe, 27 Ga 1/2” needle</td>
<td></td>
<td>BD</td>
<td></td>
</tr>
<tr>
<td>Glucometer</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Protocol:

1. Mice are fasted for six hours by removal to a clean cage without food at the end of their dark (feeding) cycle.
2. Mice are weighed.
3. After 6h of fasting, a fasting glucose level is obtained from venous blood from a small tail clip.
4. 1 mg/g body glucose is injected intraperitoneally.
5. Blood glucose values are obtained at 5, 15, 30, 60, and 120 min.
6. If desired, blood may also be obtained for insulin assay (~50 µl) at any time point.