Pancreatic Growth after Partial Pancreatectomy and Exendin-4 Treatment - Study GBCO1790

**Genomics Study Specifications**

<table>
<thead>
<tr>
<th>Study Name</th>
<th>Pancreatic Growth after Partial Pancreatectomy and Exendin-4 Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Name</td>
<td>Doris A. Stoffers (University of Pennsylvania)</td>
</tr>
<tr>
<td>My Strategies</td>
<td>Return to My Strategies page</td>
</tr>
<tr>
<td>Classification</td>
<td>Pancreas development and growth</td>
</tr>
<tr>
<td>Links</td>
<td>Biomaterials Graph, ArrayExpress</td>
</tr>
<tr>
<td>BCBC Release Date</td>
<td>July 13, 2005</td>
</tr>
<tr>
<td>Public Release Date</td>
<td>July 13, 2005</td>
</tr>
<tr>
<td>Citation</td>
<td>De León DD, Farzad C, Crutchlow MF, Brestelli J, Tobias J, Kaestner KH, Stoffers DA. Identification of transcriptional targets during pancreatic growth after partial pancreatectomy and exendin-4 treatment. Physiol Genomics. 2006; 24:133-43</td>
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</tbody>
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**Synopsis**

Diabetes mellitus results from an inadequately functioning beta-cell mass. In the adult pancreas, beta-cell mass is dynamic, increasing to meet metabolic demands and decreasing with metabolic or injury insults. Exendin-4 (Ex-4) is a glucagon-like peptide-1 receptor agonist that augments beta-cell mass by increasing beta-cell neogenesis and proliferation and by reducing apoptosis. We utilized a cDNA microarray approach to identify genes that are differentially regulated during islet growth after Ex-4 treatment or a partial pancreatectomy (Ppx). Mice underwent 50% Ppx or sham operation and received Ex-4 or vehicle every 24 hours. cDNA prepared from total pancreatic RNA isolated at 12, 24 and 48 hrs after surgery was hybridized to the PancChip 4.0 microarray.

**Access to Study Data**

This Study Data is publicly available to all users.

**Gene List(s)**
Use the following form(s) to refine the parameters and add the gene list to a strategy:

**Pancreatectomy/Vehicle versus Sham/Vehicle - Mouse Pancreas 12 hour**

| Fold Change Greater Than: | 1.5 |
| Confidence Level: | High Confidence | All Results |
| Reference (Denominator): | Sham Vehicle 12HR |

For a microarray experiment a result with high confidence has a confidence level of at least 80%.
For a ChIP-chip experiment a result with high confidence has a confidence level of at least 90% and all fold changes are positive.

Genome Browser

There are no genome browser tracks currently available for this study.

Lists of Locations

There are no genomic location datasets currently available for this study.

Repositories

Stoffers Lab

- Stock #: Not provided
- Availability Notes: Not provided

Comments

There are no comments for this entry.

Pancreatectomy/Exendin-4 versus Pancreatectomy/Vehicle - Mouse Pancreas 12 hour

Pancreatectomy/Vehicle versus Sham/Vehicle - Mouse Pancreas 24 hour

Sham/Exendin-4 versus Sham/Vehicle - Mouse Pancreas 24 hour

Pancreatectomy/Vehicle versus Sham/Vehicle - Mouse Pancreas 48 hour

Sham/Exendin-4 versus Sham/Vehicle - Mouse Pancreas 12 hour

Pancreatectomy/Exendin-4 versus Pancreatectomy/Vehicle - Mouse Pancreas 24 hour

Pancreatectomy/Exendin-4 versus Pancreatectomy/Vehicle - Mouse Pancreas 48 hour

Sham/Exendin-4 versus Sham/Vehicle - Mouse Pancreas 48 hour

Pancreatectomy/Exendin-4 versus Pancreatectomy/Vehicle - Mouse Pancreas 12 hour

Pancreatectomy/Exendin-4 versus Pancreatectomy/Vehicle - Mouse Pancreas 24 hour

Pancreatectomy/Exendin-4 versus Pancreatectomy/Vehicle - Mouse Pancreas 48 hour

Sham/Exendin-4 versus Sham/Vehicle - Mouse Pancreas 48 hour

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