Microarray analysis of in vitro differentiation of adult human pancreatic progenitor cells - Study GBCO870

Genomics Study Specifications

<table>
<thead>
<tr>
<th>Study Name</th>
<th>Microarray analysis of in vitro differentiation of adult human pancreatic progenitor cells</th>
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<tbody>
<tr>
<td>Contact Name</td>
<td>Joel F. Habener (Massachusetts General Hospital/HHMI)</td>
</tr>
<tr>
<td>Publication</td>
<td>Not provided</td>
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<tr>
<td>Classification</td>
<td>Cell differentiation; Differentiation of insulin-producing cells</td>
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<tr>
<td>Links</td>
<td>Biomaterials Graph, ArrayExpress</td>
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</tbody>
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Public Release Date: January 30, 2004
Citation: unavailable

Synopsis

We have developed an in vitro culture system that allows us to expand progenitor cells from human islet preparations and differentiate them into insulin-producing cells. We noticed, however, that cultures from individual islet preparations had very heterogeneous outcomes, from good differentiation to almost none. We therefore speculated that our progenitor cell cultures contained different kinds of cells and that the true endocrine progenitor cells are present in the successful cultures, but not in the unsuccessful ones. To address this issue and to begin to identify markers for the true endocrine progenitor cells we compared global gene expression between a very successful culture (final insulin-expression 10% of islets) and an unsuccessful one (final insulin-expression 0%). We also included RNA from freshly isolated islets for control purposes. The cultures from donor A yielded substantial differentiation, while the cultures from donor B showed no successful differentiation.

Platform types

- Expression microarray, Expression

Platforms

- Show platform Affymetrix HG_U95A

Study Design Type

- cell_type_comparison_design
- development_or_differentiation_design

Study Factors

- Show study factors

Study Assays

- Show study assays

Access to Study Data

This Study Data is publicly available to all users.
Gene List(s)
There are no gene lists currently available for this study.

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
Stoeckert Lab

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<tr>
<th>Stock #</th>
<th>Availability Notes</th>
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Comments
There are no comments for this entry.