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Profile of Neurogenin3 Expression Throughout Embryonic Development of the Endocrine Pancreas in Mice - Study GBCO2520

Genomics Study Specifications

| | |
|----------------------------|--|
| Study Name | Profile of Neurogenin3 Expression Throughout Embryonic Development of the Endocrine Pancreas in Mice |
| Contact Name | Klaus Kaestner (University of Pennsylvania) |
| Publication | http://www.ncbi.nlm.nih.gov/pubmed/18071024 |
| My Strategies | Return to My Strategies page |
| Classification | Pancreas development and growth |
| Links |  Biomaterials Graph  ArrayExpress |
| BCBC Release Date | December 10, 2007 |
| Public Release Date | December 10, 2007 |
| Citation | White P, May CL, Lamounier RN, Brestelli JE, Kaestner KH. Defining pancreatic endocrine precursors and their descendants . <i>Diabetes</i> . 2008. 57:654-68 |

Synopsis**Study Description**

Goals

Approaches

Results

Conclusions

Related Studies


Neurogenin3 (Ngn3) is a basic helix-loop-helix transcription factor which is expressed in scattered cells in the embryonic pancreas. Mice deficient for Ngn3 fail to produce any pancreatic endocrine cells and die shortly after birth. Expression of transcription factors critical to pancreatic development (Isl1, NeuroD, Pax4, and Pax6) is missing and endocrine precursors are absent in mutant pancreatic epithelium. This study utilizes mice which were engineered to contain EGFP (Enhanced Green Fluorescent Protein) under the control of the Ngn3 promoter. In this way, cells which express Ngn3 can be FACS sorted and studied throughout embryonic development (E13.5, E14.5, E15.5, E16.5, and E17.5). EGFP positive cells from the embryonic time-points in addition to adult islets (no cells expressing Ngn3) were hybridized to the BCBC PancChip 6.0 expression microarray, thus generating a profile of gene expression during this critical stage of development of the endocrine pancreas.

| | |
|--------------------------|--|
| Platform types | Expression microarray, Expression |
| Platforms | Show platform Mouse PancChip |
| Study Design Type | <ul style="list-style-type: none"> reference_design time_series_design |
| Study Factors | Show study factors |
| Study Assays | Show study assays |


Access to Study Data

This Study Data is publicly available to all users.

Access Status

 This resource is publicly viewable.

Request this Resource

 Request from a repository

Primary contributor: [Kaestner Lab](#)

Co-contributed by:

- [Stoeckert Lab](#)

Resource Tags

glypican 3, Gpc3, Mouse PancChip 6.0, Neurog3, neurogenin 3, ngn3, Ngn3


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 Read more about tags

Resource History & Actions

Approved on Dec 10, 2007

Last modified on Aug 02, 2011

 Login to edit or request an edit

Related resources**BCBC**

No matching resources

Other Consortia

No matching resources

Data courtesy of [dkCOIN](#). Only public resources are displayed.

Gene List(s)

Browse related gene lists by clicking on the link(s) below:

[NGN3 Expressing Cells - Timecourse](#)

Browse author's list of results

Genome Browser

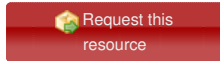
There are no genome browser tracks currently available for this study.

Lists of Locations

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

Repositories

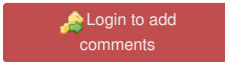
Kaestner Lab



Stock #: *Not provided*
Availability Notes: *Not provided*

Comments

There are no comments for this entry.



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