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

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Rat pancreatic gene expression after culture in increasing glucose levels - Study GBCO3650

Genomics Study Specifications

Study Name	Rat pancreatic gene expression after culture in increasing glucose levels
Contact Name	Jean-Christophe Jonas (University catholique de Louvain)
Publication	http://www.ncbi.nlm.nih.gov/pubmed/19165461
My Strategies	Return to My Strategies page
Classification	Cell stimulation/injury; Islet/beta-cell stimulation/injury
Links	 Biomaterials Graph  GEO
BCBC Release Date	August 11, 2009
Public Release Date	August 11, 2009
Citation	Bensellam M, Van Lommel L, Overbergh L, Schuit FC, Jonas JC. Cluster analysis of rat pancreatic islet gene mRNA levels after culture in low-, intermediate- and high-glucose concentrations. <i>Diabetologia</i> . 2009. 52:463-76

Synopsis

Study Description	Goals	
Approaches	Results	Conclusions
Related Studies		
<p>Survival and function of insulin-secreting pancreatic beta-cells are markedly altered by changes in nutrient availability. In vitro, culture in 10 rather than 2mM glucose improves rodent beta-cell survival and function whereas glucose concentrations above 10mM are deleterious. The purpose of this study was to identify the mechanisms of such beta-cell plasticity; we tested the effects of a 18h culture at 2, 5, 10 and 30mM glucose on the transcriptome of rat islets precultured for 1 week at 10mM glucose (Affymetrix Rat 230.2 arrays).</p>		

Platform types	Expression microarray, Expression
Platforms	Show platform Affymetrix GeneChip Rat Genome 230 2.0 Array
Study Design Type	<ul style="list-style-type: none"> compound_treatment_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)

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

Access Status

 This resource is publicly viewable.

Request this Resource

 [Request from a repository](#)


Primary contributor: [Stoeckert Lab](#)
Co-contributed by:

- [Stoeckert Lab](#)

Resource Tags


Affymetrix GeneChip Rat Genome 230 2.0 Array, Aldob, Crem, Dbp, Ddit3, Fas, Fos, Hmox1, Mt1aH, Srebf1, Srebf2, Trib3, Txnip

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Resource History & Actions

Approved on Aug 11, 2009
Last modified on Jan 17, 2012

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Related resources

BCBC

No matching resources

Other Consortia

No matching resources

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

|Fold Change| Greater Than:

Confidence Level:

High Confidence All Results

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.

Reference (Denominator):

10mM Glucose Islet Culture

▶ **Rat islets cultured in 10mM versus 2 mM glucose**

▶ **Rat islets cultured in 30mM versus 2 mM glucose**

▶ **Rat islets cultured in 5mM versus 2 mM glucose**

▶ **Rat islets cultured in 10mM versus 5 mM glucose**

▶ **Rat islets cultured in 30mM versus 5 mM glucose**

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

Comments

There are no comments for this entry.

