Cytokine induced dysfunction and apoptosis in insulin producing INS1 Cells - Study GBCO2002

Genomics Study Specifications

Study Name: Cytokine induced dysfunction and apoptosis in insulin producing INS1 Cells

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My Strategies: Return to My Strategies page

Classification: Islet/beta-cell stimulation/injury; Cell stimulation/injury

Links:
- Biomaterials Graph
- ArrayExpress

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Citation: Kutlu B, Cardozo AK, Darville MI, Kruhøffer M, Magnusson N, Ørntoft T, Eizirik DL. Discovery of gene networks regulating cytokine-induced dysfunction and apoptosis in insulin-producing INS-1 cells. Diabetes. 2003. 52:2701-19

Synopsis

Goals:
Locally released cytokines contribute to beta cell dysfunction and apoptosis in Type 1 diabetes. In vitro exposure of insulin producing INS 1E cells to the cytokines interleukin (IL) 1beta + interferon (IFN) gamma leads to a significant increase in apoptosis. To characterize the genetic networks implicated in beta cell dysfunction and apoptosis and its dependence on nitric oxide (NO) production, we performed a time course analysis using the Affymetrix RG U34A microarray.

Approaches:
INS 1E cells were exposed in duplicate to IL 1beta + IFN gamma for six different time points (1, 2, 4, 8, 12, and 24 h) with or without the inducible NO synthase blocker.

Results:

Conclusions:

Related Studies

Platform types: Expression, Expression microarray

Platforms

Study Design Type
- compound_treatment_design
- time_series_design

Study Factors

Study Assays

Access to Study Data

This Study Data is publicly available to all users.

Gene List(s)
Browse related gene lists by clicking on the link(s) below:
Cytokine vs control INS1 cells (across time)
NMA cytokine vs NMA INS1 cells (across time)

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.