Global profiling of double stranded RNA- and IFN-gamma-induced genes in rat pancreatic beta cells. - Study GBCO2001

Genomics Study Specifications

| Study Name | Global profiling of double stranded RNA- and IFN-gamma-induced genes in rat pancreatic beta 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

BCBC Release Date | October 19, 2005 |
Public Release Date | October 19, 2005 |

Citation


Synopsis

Viral infections and local production of IFN-gamma might contribute to beta-cell dysfunction/death in Type 1 Diabetes. Double stranded RNA accumulates in the cytosol of viral-infected cells, and exposure of purified rat beta cells to dsRNA (polyinosinic-polycytidylic acid, PIC) in combination with IFN-gamma results in beta-cell dysfunction and apoptosis. To elucidate the molecular mechanisms involved in PIC + IFN-gamma-effects, we determined the global profile of genes modified by these agents in primary rat beta cells. FACS-purified rat beta cells were cultured for 6 or 24 h in control condition or with IFN-gamma, PIC or a combination of both agents. The gene expression profile was analyzed in duplicate with the Affymetrix RG U34A microarray.

Platform types

Expression microarray, Expression

Platforms

Show platform Affymetrix RG U34A

Study Design Type

- compound_treatment_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.

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**

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**Comments**
There are no comments for this entry.