

# NEUROD1- and PDX1-dependent synthesis of glucokinase (GCK) protein

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## Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

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## Literature references

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- Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics*, 33, 3461-3467. [↗](#)
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- Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology*, 14, e1005968. [↗](#)

Reactome database release: 88

This document contains 1 reaction ([see Table of Contents](#))

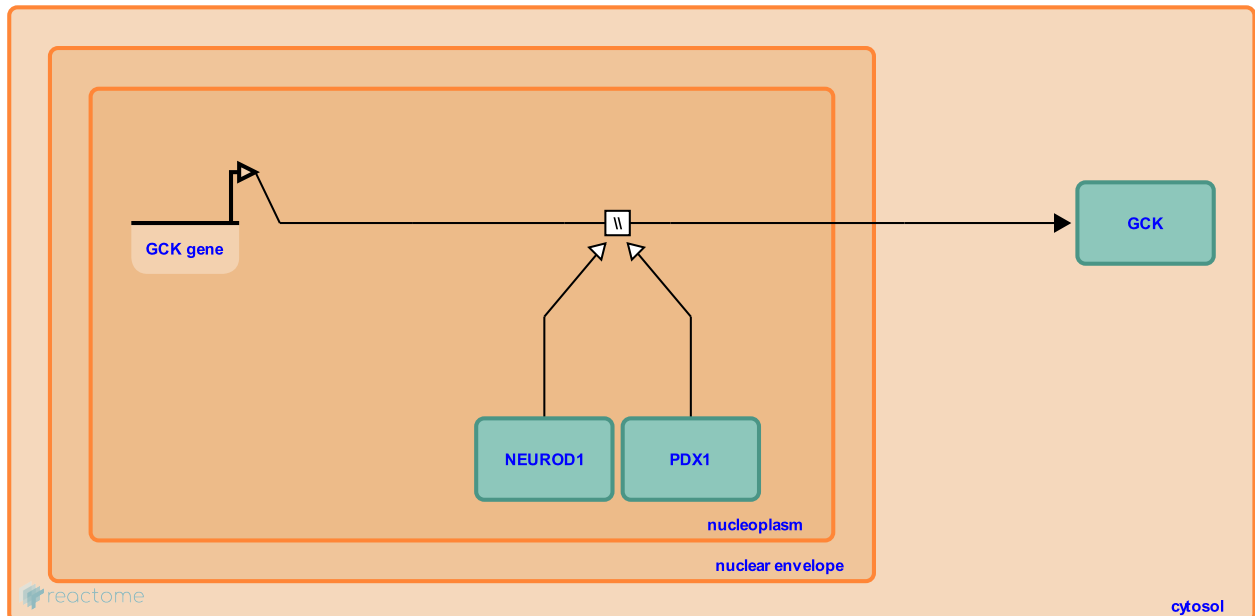
## NEUROD1- and PDX1-dependent synthesis of glucokinase (GCK) protein ↗

**Stable identifier:** R-HSA-211346

**Type:** omitted

**Compartments:** nucleoplasm, cytosol

**Inferred from:** [NeuroD1- and Pdx1-dependent synthesis of glucokinase \(Gck\) protein \(Mus musculus\)](#)



The glucokinase (GCK) gene is transcribed and its mRNA is translated. GCK transcription is positively regulated by the activity of the NEUROD1 and PDX1 transcription factors. These events and interactions are inferred from corresponding ones studied in molecular detail in the mouse.

### Editions

2008-05-13	Edited	D'Eustachio, P.
2008-05-13	Reviewed	Jensen, J.
2008-05-24	Authored	Tello-Ruiz, MK., Ferrer, J.