GLI3R binds the GLI2 promoter

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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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Reactome database release: 88

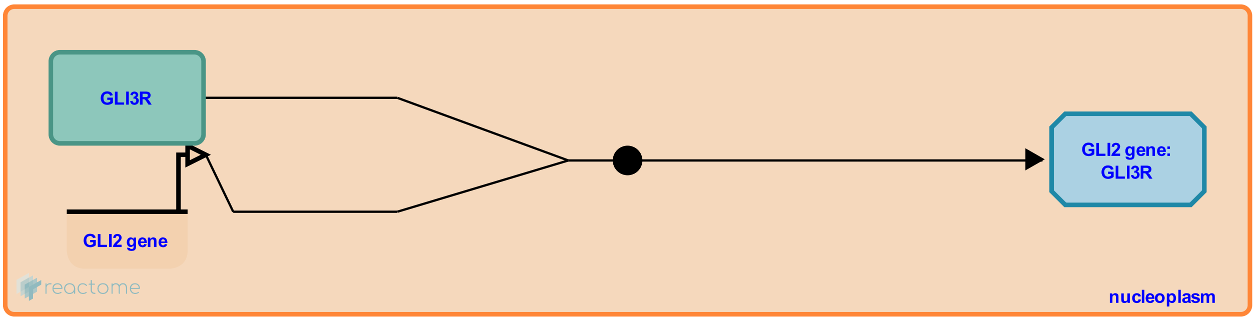
This document contains 1 reaction (see Table of Contents)

GLI3R binds the GLI2 promoter ↗

Stable identifier: R-HSA-5617410

Type: binding

Compartments: nucleoplasm



GLI3R is a DNA-binding transcriptional repressor that recognizes consensus GLI sites 5'-GACCACCC-3' in the promoters of target genes (Kinzler and Vogelstein, 1990). DNA-binding is mediated through 5 C2H2 Kruppel zinc fingers in the N-terminal region of the protein, which remains intact after proteasome-mediated processing (reviewed in Hui and Angers, 2011). In the absence of Hh signaling, GLI3R has been shown to bind to the promoters of the GLI1 and GLI2 genes as assesed by ChIP and to repress gene expression (Hu et al, 2006).

Literature references

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Editions

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