PTK6 Down-Regulation

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This is just an excerpt of a full-length report for this pathway. To access the complete report, please download it at the Reactome Textbook.

26/12/2022
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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references


Reactome database release: 83

This document contains 1 pathway and 3 reactions (see Table of Contents)
The kinase activity of PTK6 is negatively regulated by both PTPN1 phosphatase (Fan et al. 2013), which dephosphorylates tyrosine Y342 of PTK6, and SRMS kinase (Fan et al. 2015), which phosphorylates PTK6 on tyrosine residue Y447.

**Literature references**


**Editions**

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Protein tyrosine kinase SRMS phosphorylates PTK6 (BRK) on a C-terminal tyrosine residue Y447, resulting in the inhibition of PTK6 kinase activity. In vitro, SRMS can phosphorylate PTK6 at Y447 in the absence of PTK6 autophosphorylation at Y342. It is not known if SRMS directly binds to PTK6 (Fan et al. 2015).

Literature references


Editions

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https://reactome.org
PTPN1 binds PTK6

**Location:** PTK6 Down-Regulation

**Stable identifier:** R-HSA-8849428

**Type:** binding

**Compartments:** cytosol

PTPN1 (PTP1B) binds PTK6 (BRK) phosphorylated on tyrosine residue Y342 (Fan et al. 2013).

**Followed by:** PTPN1 dephosphorylates PTK6

**Literature references**


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Protein tyrosine phosphatase PTPN1 (PTP1B) dephosphorylates tyrosine residue Y342 of PTK6 (BRK), resulting in PTK6 inactivation (Fan et al. 2013).

**Preceded by:** PTPN1 binds PTK6

**Literature references**


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</table>
Table of Contents

Introduction 1

PTK6 Down-Regulation 2
  SRMS phosphorylates PTK6 3
  PTPN1 binds PTK6 4
  PTPN1 dephosphorylates PTK6 5

Table of Contents 6