PIAS4 SUMOylates VHL with SUMO1

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19/05/2024

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

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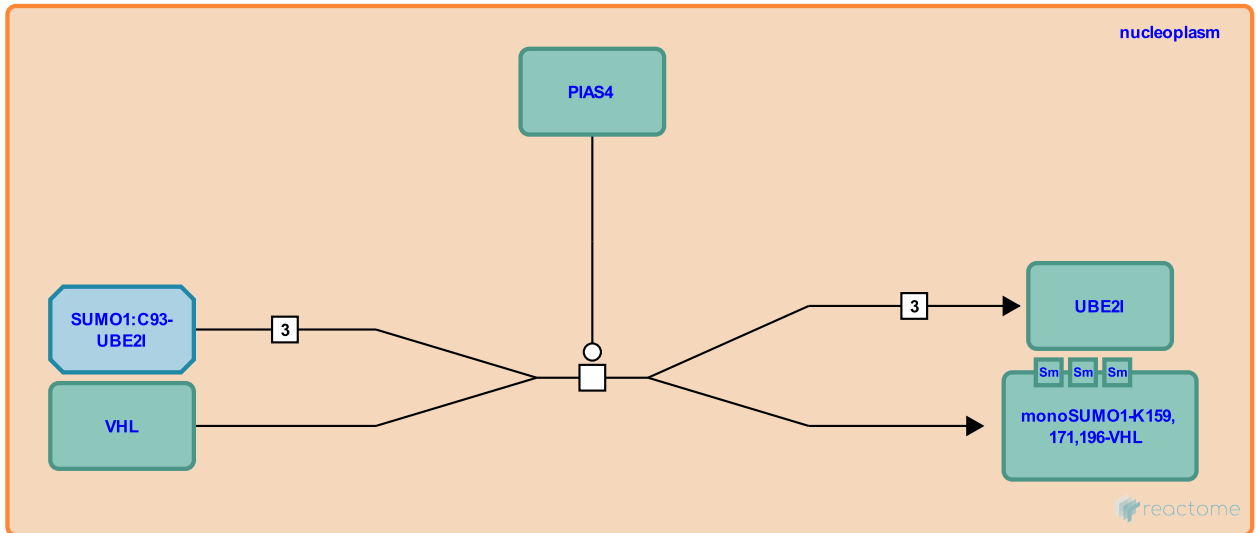
Reactome database release: 88

This document contains 1 reaction (see Table of Contents)

PIAS4 SUMOylates VHL with SUMO1 ↗

Stable identifier: R-HSA-4551721

Type: transition

Compartments: nucleoplasm

PIAS4 SUMOylates VHL at lysine-159, lysine-171, and possibly lysine-196 with SUMO1 (Cai et al. 2010, Chien et al. 2013). SUMOylation facilitates the oligomerization of VHL, abolishes the inhibitory function of VHL on HIF1A, and abolishes the tumor suppressor function of VHL by inactivating the ubiquitinylation activity of VHL.

Literature references

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Editions

2013-09-13	Authored, Edited	May, B.
2018-05-09	Reviewed	Niskanen, E.
2018-08-08	Reviewed	Niskanen, E.