SUMOylation of CBX5 with SUMO1

Lu, J., Matunis, MJ., May, B., Yang, WC.
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: 78

This document contains 1 reaction (see Table of Contents)
**SUMOylation of CBX5 with SUMO1**

**Stable identifier:** R-HSA-4615933

**Type:** transition

**Compartments:** nucleoplasm

**Inferred from:** Sumoylation of Cbx5 with Sumo1 (Mus musculus)

As inferred from mouse homologs, CBX5 (HP1 alpha) is SUMOylated at lysine-84 and other lysine residues with SUMO1. SUMOylated CBX5 associates with long non-coding transcripts in pericentric heterochromatin and SUMOylation is required for initial targeting of CBX5 to pericentric domains.

**Editions**

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-09-21</td>
<td>Authored, Edited</td>
<td>May, B.</td>
</tr>
<tr>
<td>2017-01-22</td>
<td>Reviewed</td>
<td>Matunis, MJ., Lu, J., Yang, WC.</td>
</tr>
</tbody>
</table>