CDK1 phosphorylates condensin II subunit NCAPD3

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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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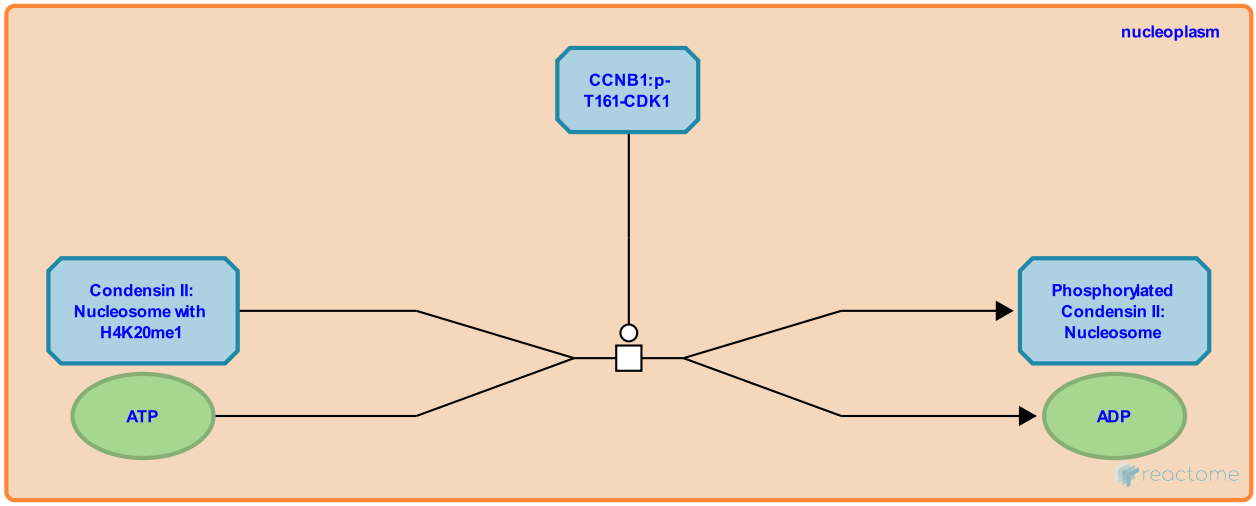
Stable identifier: R-HSA-2294600

Type: transition

Compartments: nucleoplasm



Phosphorylation of the threonine residue T1415 of condensin II subunit NCAPD3 is required for chromosome condensation in prophase. In vivo, phosphorylation of NCAPD3 threonine residue T1415 is blocked when cells are treated with CDK1 inhibitors. In addition, it was shown that CDK1 in complex with cyclin B1 (CDK1:CCNB1) phosphorylates NCAPD3 at T1415 in vitro (Abe et al. 2011).

Literature references

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Editions

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