

Condensin II-mediated condensation of prophase chromosomes

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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

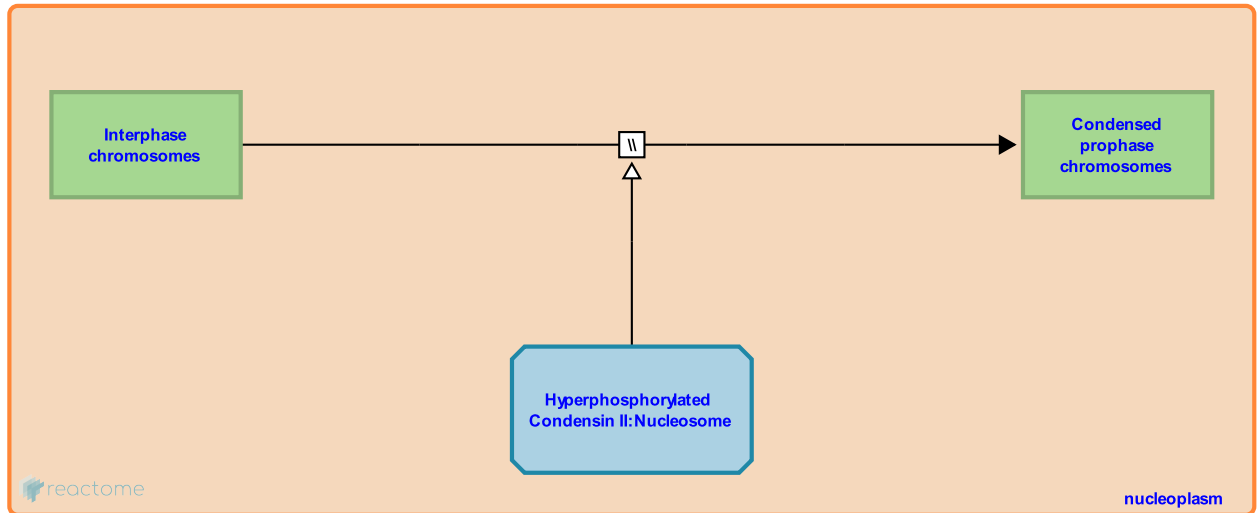
This document contains 1 reaction ([see Table of Contents](#))

Condensin II-mediated condensation of prophase chromosomes [↗](#)

Stable identifier: R-HSA-2294574

Type: omitted

Compartments: nucleoplasm



Condensation of chromosomes in prophase is mediated by chromatin-bound hyperphosphorylated condensin II complex.

Literature references

Nagasaka, K., Hirota, T., Aoyagi, Y., Abe, S., Kozuka-Hata, H., Obuse, C. et al. (2011). The initial phase of chromosome condensation requires Cdk1-mediated phosphorylation of the CAP-D3 subunit of condensin II. *Genes Dev.*, 25, 863-74. [↗](#)

Herr, A., Longworth, MS., Ji, JY., Dyson, NJ. (2008). RBF1 promotes chromatin condensation through a conserved interaction with the Condensin II protein dCAP-D3. *Genes Dev.*, 22, 1011-24. [↗](#)

Editions

2013-04-23	Edited	Matthews, L.
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