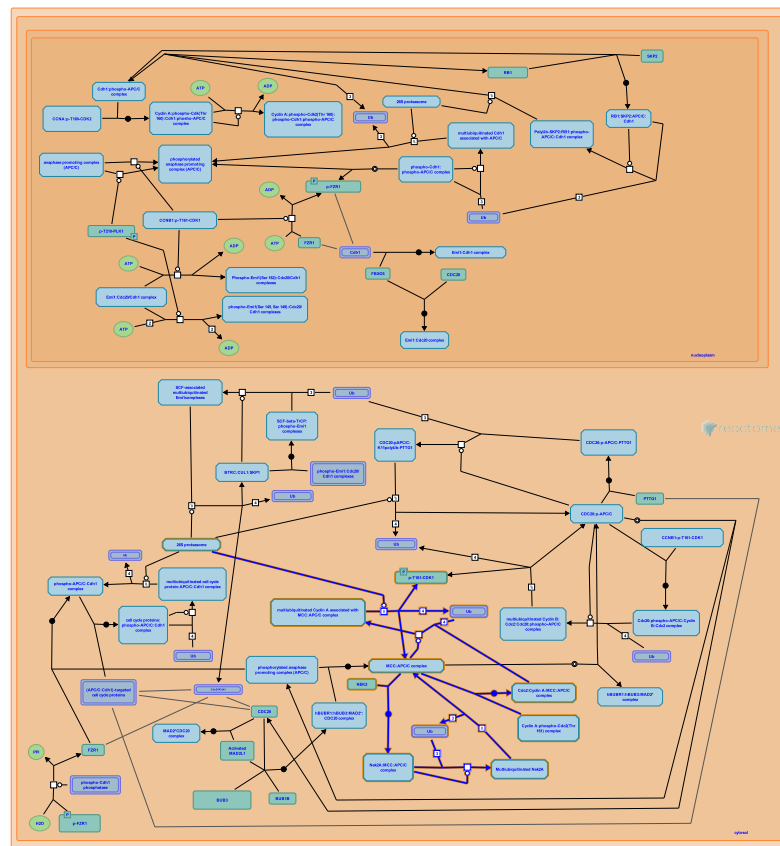


# APC:Cdc20 mediated degradation of cell cycle proteins prior to satisfaction of the cell cycle checkpoint



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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

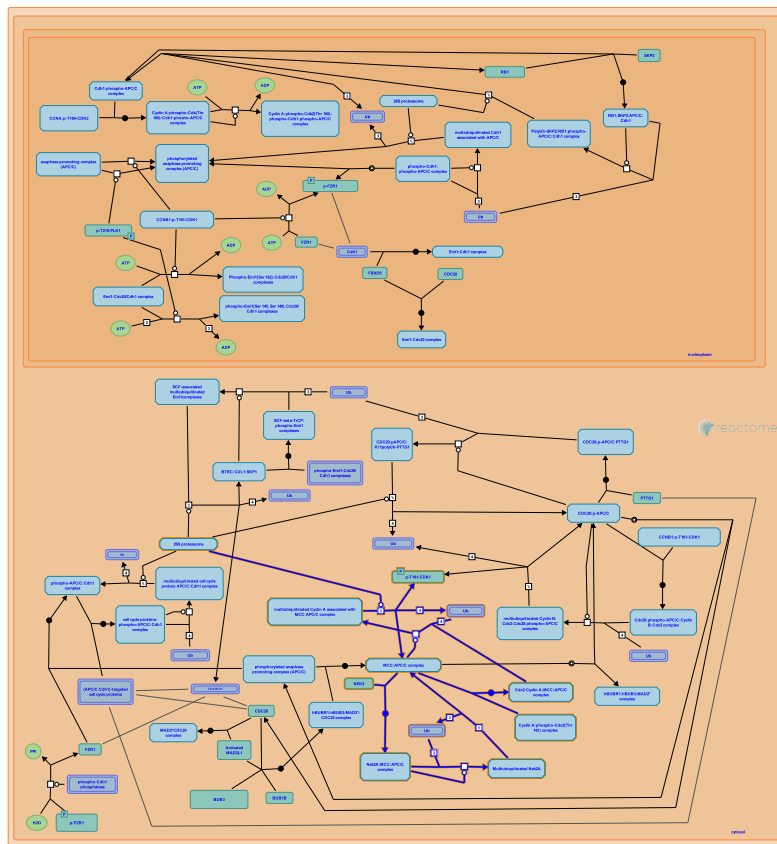
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Reactome database release: 76

This document contains 3 pathways ([see Table of Contents](#))

# APC:Cdc20 mediated degradation of cell cycle proteins prior to satisfaction of the cell cycle checkpoint ↗

Stable identifier: R-HSA-179419



APC:CDC20 mediates the degradation of a number of cell cycle proteins including Cyclin A and Nek2A.

## Editions

2006-01-26

Authoried

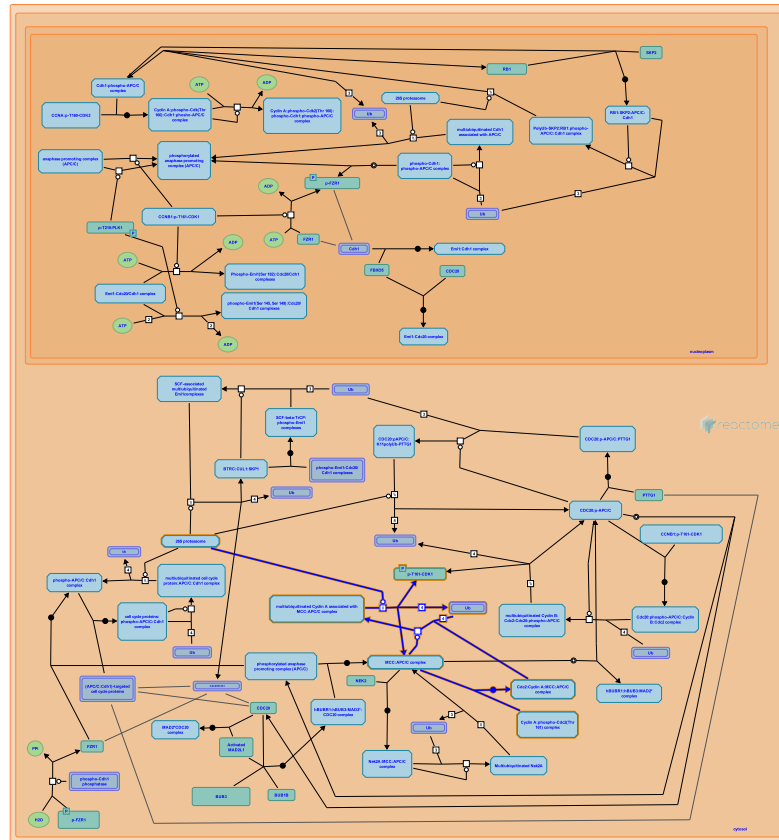
Lorca, T., Castro, A.

## Cdc20:Phospho-APC/C mediated degradation of Cyclin A ↗

**Location:** APC:Cdc20 mediated degradation of cell cycle proteins prior to satisfaction of the cell cycle checkpoint

**Stable identifier:** R-HSA-174184

**Compartments:** cytosol



Cyclin A, functions in mitosis as well as DNA replication and is degraded in the interim by the APC/C to permit normal chromosome segregation, cell division, and the onset of S phase (see Lukas and Bartek, 2004). Cyclin A is initially degraded early in mitosis by APC/C:Cdc20 when the spindle checkpoint is still active and degradation of securin and cyclin B is inhibited.

### Literature references

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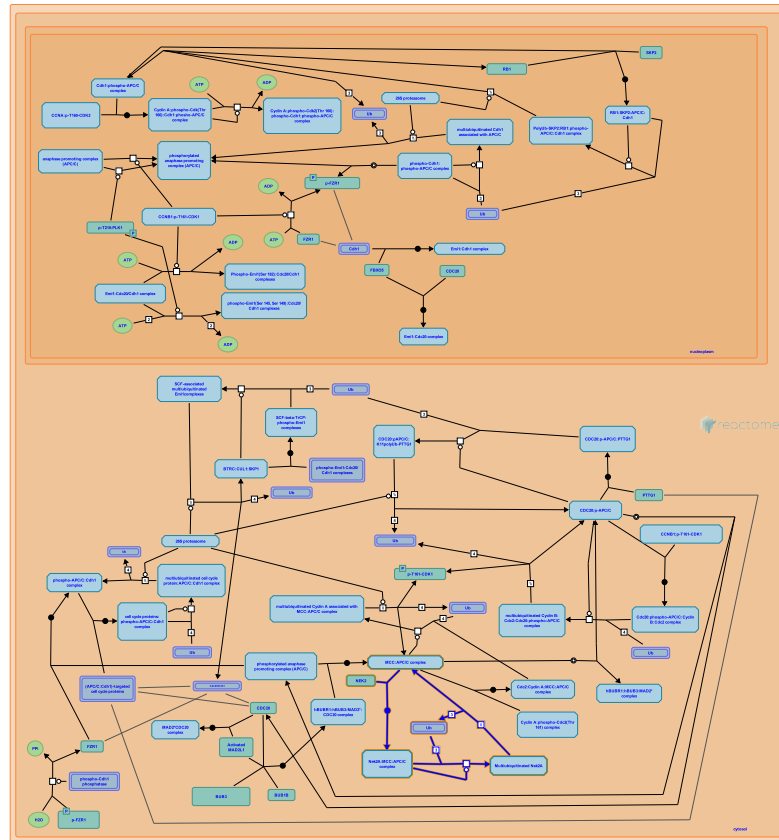
2006-01-26	Authored	Lorca, T., Castro, A.
2006-01-30	Edited	Matthews, L.
2006-03-28	Reviewed	Peters, JM.

## APC-Cdc20 mediated degradation of Nek2A ↗

**Location:** APC:Cdc20 mediated degradation of cell cycle proteins prior to satisfaction of the cell cycle checkpoint

**Stable identifier:** R-HSA-179409

**Compartments:** cytosol



Like Cyclin A, NIMA-related kinase 2A (Nek2A) is degraded during pro-metaphase in a checkpoint-independent manner.

### Literature references

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### Editions

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2006-07-11	Edited	Matthews, L.

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