

CHEK1 phosphorylates RAD51

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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.

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: 77

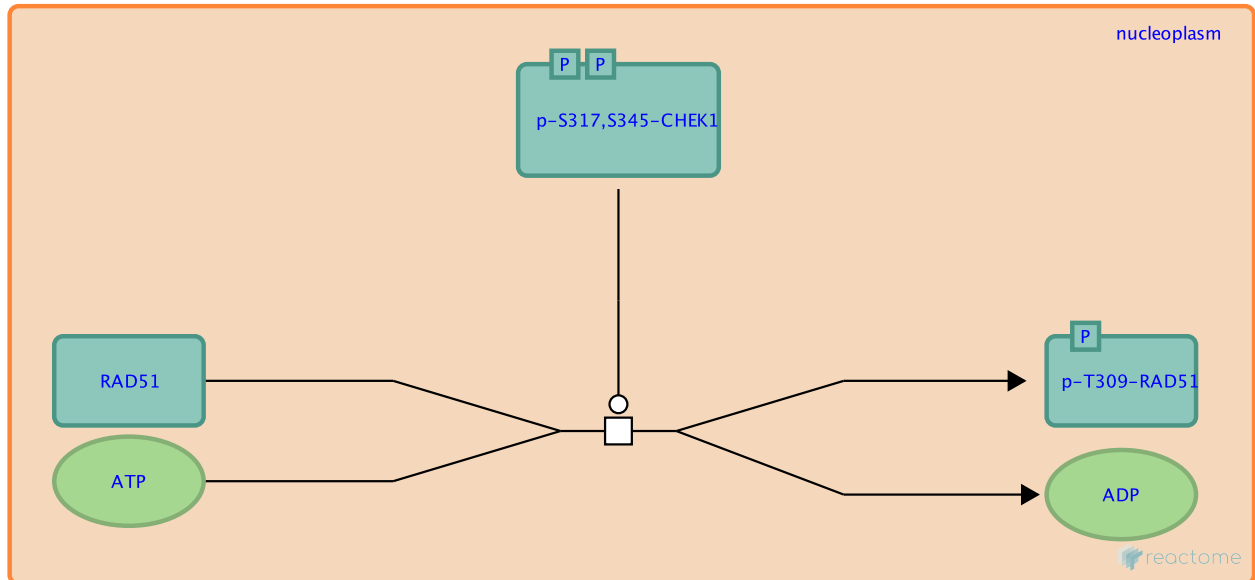
This document contains 1 reaction ([see Table of Contents](#))

CHEK1 phosphorylates RAD51 ↗

Stable identifier: R-HSA-5685230

Type: transition

Compartments: nucleoplasm



Activated CHEK1 phosphorylates RAD51 on threonine residue T309, which is necessary for RAD51 association with chromatin (Sorensen et al. 2005).

Literature references

Sørensen, CS., Hansen, LT., Dziegielewska, J., Syljuåsen, RG., Lundin, C., Bartek, J. et al. (2005). The cell-cycle checkpoint kinase Chk1 is required for mammalian homologous recombination repair. *Nat. Cell Biol.*, 7, 195-201. ↗

Editions

2015-05-12	Authored, Edited	Orlic-Milacic, M.
2015-06-12	Reviewed	Borowiec, JA.