ATM phosphorylates TP53BP1 at DNA DSBs

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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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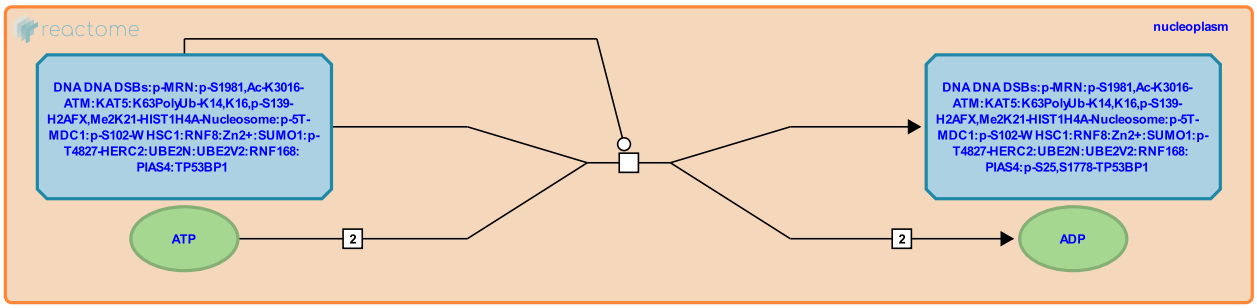
Stable identifier: R-HSA-5683425

Type: transition

Compartments: nucleoplasm



Activated ATM hyper-phosphorylates TP53BP1 (53BP1) at multiple residues in response to DNA damage (Fernandez-Capetillo et al. 2002, Ward et al. 2003, Jowsey et al. 2007). Phosphorylation of TP53BP1 serine residues S25 and S1778 is important for the retention of TP53BP1 at DNA double-strand break (DSB) sites (Kang et al. 2009).

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Editions

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