REV1 recruits POLZ to (AP:Cyt)-DNA Template

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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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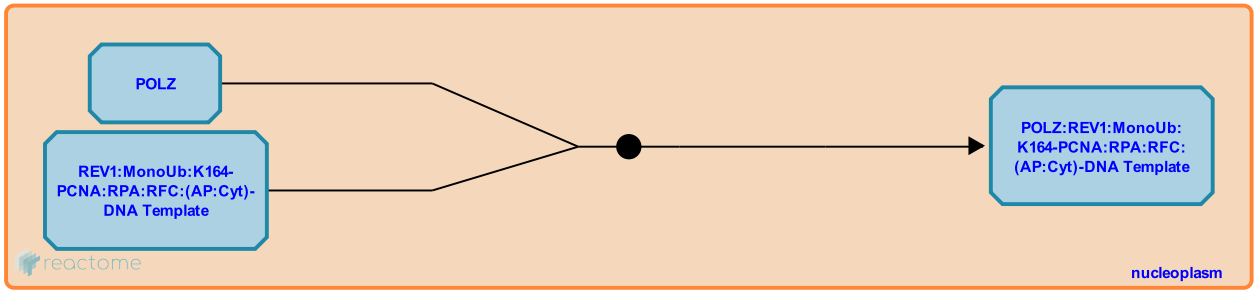
Stable identifier: R-HSA-5652151

Type: binding

Compartments: nucleoplasm



REV1, bound to the replication complex, recruits DNA polymerase zeta (POLZ, REV3L:MAD2L2) to the damaged DNA template. REV3L does not bind REV1 directly. Instead, REV3L binding to MAD2L2 (REV7) during the formation of POLZ complex causes a conformational change in MAD2L2 that allows the C-terminal domain of MAD2L2 to bind the C-terminus of REV1 (Nelson et al. 1996, Hara et al. 2010, Kikuchi et al. 2012, Xie et al. 2012)

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Editions

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