

Prdm9 Binds Recombination Hotspot Motifs in DNA

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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

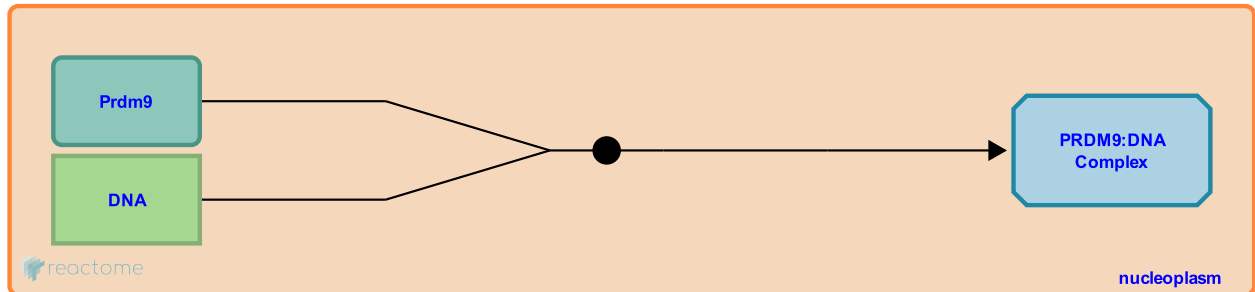
This document contains 1 reaction ([see Table of Contents](#))

Prdm9 Binds Recombination Hotspot Motifs in DNA [↗](#)

Stable identifier: R-MMU-912383

Type: binding

Compartments: nucleoplasm



The Prdm9 protein binds to sequences that are hotspots for recombination (Baudat et al. 2010, Myers et al. 2010). Prdm9 is homologous to methyltransferases that methylate histone H3 at lysine4 (H3K4) and has been shown to trimethylate H3K4 (Hayashi et al. 2005). In yeast and mice, H3K4 methylation marks recombination hotspots.

Literature references

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Editions

2010-07-03	Authored, Edited	May, B.
2011-02-05	Reviewed	Schimenti, JC., Cohen, PE., Holloway, JK.
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