

PRDM11 Antibody / PR domain-containing protein 11 (FY13359)

Catalog No.	Formulation	Size
FY13359	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

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Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q9NQV5
Applications	Western Blot : 0.25-0.5ug/ml Immunohistochemistry : 2-5ug/ml Immunocytochemistry : 5ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This PRDM11 antibody is available for research use only.

Description

PRDM11 antibody detects PR domain-containing protein 11, a nuclear transcriptional regulator encoded by the PRDM11 gene located on chromosome 11q24.2. PRDM11 belongs to the PR domain zinc finger protein family, known for roles in transcriptional repression, chromatin modification, and developmental gene regulation. It contains a PR (positive regulatory) domain with methyltransferase-related function and multiple C2H2-type zinc finger motifs for DNA binding. PRDM11 is expressed in lymphoid tissues, brain, and testis, where it influences lineage specification and cellular differentiation through epigenetic control.

PRDM11 functions as a transcriptional repressor that modulates gene expression by recruiting histone-modifying enzymes such as histone methyltransferases and HDACs. Through these interactions, PRDM11 establishes repressive chromatin environments to silence developmental regulators. It plays a role in maintaining proper differentiation states of B cells and neurons by controlling genes involved in proliferation and signaling. Co-localization studies show PRDM11 concentrated in nuclear foci where transcriptional repression occurs.

Structurally, PRDM11 contains an N-terminal PR/SET domain that is homologous to histone lysine methyltransferases, although its intrinsic enzymatic activity remains unclear. The C-terminal region includes multiple zinc finger motifs that recognize specific DNA sequences and allow recruitment of co-repressors. It belongs to the PRDM family of transcriptional regulators, which includes PRDM1 (BLIMP-1), PRDM2, and PRDM16, all of which play pivotal roles in development and oncogenesis.

Functionally, PRDM11 contributes to chromatin-mediated gene silencing and developmental programming. It represses target genes involved in cell proliferation and signaling pathways, promoting stable cell identity. In neural tissues, PRDM11 is implicated in neuronal subtype specification, while in hematopoietic cells it influences differentiation and germinal center responses. It may also coordinate cross-talk between chromatin remodeling complexes and transcriptional repressors such as REST and HDAC1.

Dysregulation of PRDM11 is associated with lymphoma and other cancers. Loss of expression or chromosomal rearrangements involving PRDM11 are reported in diffuse large B-cell lymphoma, suggesting a tumor suppressor function. Aberrant PRDM11 activity can also disrupt neural differentiation or germ cell maturation. Pathway associations include chromatin organization, histone modification, and transcriptional repression networks. During embryogenesis, PRDM11 expression correlates with organogenesis and tissue patterning.

Immunohistochemical staining using PRDM11 antibody reveals nuclear localization in lymphocytes and neuronal cells. The PRDM11 antibody from NSJ Bioreagents is a valuable reagent for investigating epigenetic regulation, transcriptional repression, and developmental biology.

Application Notes

Optimal dilution of the PRDM11 antibody should be determined by the researcher.

Immunogen

E.coli-derived human PRDM11 recombinant protein (Position: E37-L483) was used as the immunogen for the PRDM11 antibody.

Storage

After reconstitution, the PRDM11 antibody can be stored for up to one month at 4°C. For long-term, aliquot and store at -20°C. Avoid repeated freezing and thawing.