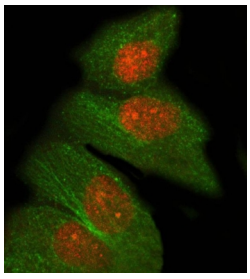
PRDM8 Antibody / PR domain zinc finger protein 8 (RQ8069)

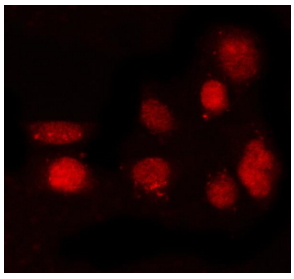
Catalog No.	Formulation	Size
RQ8069	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

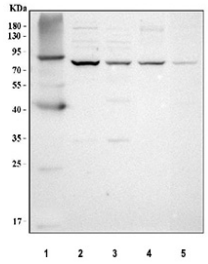
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9NQV8
Localization	Nuclear
Applications	Western Blot : 0.5-1ug/ml Immunofluorescence : 5ug/ml Direct ELISA : 0.1-0.5ug/ml
Limitations	This PRDM8 antibody is available for research use only.



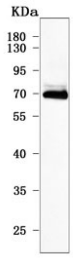
Immunofluorescent staining of FFPE human A431 cells with PRDM8 antibody (red) and Alpha Tubulin mAb (green). HIER: steam section in pH6 citrate buffer for 20 min.



Immunofluorescent staining of FFPE human PC-3 cells with PRDM8 antibody (red). HIER: steam section in pH6 citrate buffer for 20 min.



Western blot analysis using PRDM8 antibody. Lane 1: human HT1080 whole cell lysates; Lane 2: human MCF-7 whole cell lysates; Lane 3: human SH-SY5Y whole cell lysates; Lane 4: rat brain tissue lysates; Lane 5: mouse brain tissue lysates. The predicted molecular weight of PRDM8 is ~72 kDa, and a band is observed at the expected size. In HT1080 cells, PRDM8 migrates slightly higher, consistent with cell-type-dependent modification or isoform variation.



Western blot testing of human MCF7 cell lysate with PRDM8 antibody. Predicted molecular weight ~72 kDa.

Description

PRDM8 antibody targets PR domain zinc finger protein 8, encoded by the PRDM8 gene. PRDM8 is a member of the PRDM family of transcriptional regulators characterized by the presence of a PR domain related to SET methyltransferase domains and multiple C2H2-type zinc finger motifs. Proteins in this family function primarily as regulators of gene expression and chromatin state, linking sequence-specific DNA binding to epigenetic control mechanisms. PRDM8 is predominantly localized in the nucleus, where it associates with chromatin and transcriptional complexes to modulate gene regulatory programs.

Functionally, PRDM8 acts as a transcriptional regulator involved in developmental patterning and cell fate determination. Although the PR domain in some PRDM family members lacks intrinsic enzymatic activity, PRDM8 can recruit chromatin-modifying enzymes such as histone methyltransferases or deacetylases to target loci. Through these interactions, PRDM8 contributes to the establishment and maintenance of transcriptional repression or activation states, depending on cellular context. A PRDM8 antibody supports studies focused on transcriptional control, chromatin organization, and epigenetic regulation.

PRDM8 expression is enriched in the nervous system, where it has been implicated in neuronal differentiation, circuit formation, and regional specification during development. Studies have shown that PRDM8 participates in defining neuronal identity by regulating gene expression programs required for maturation and connectivity. In adult tissues, PRDM8 expression is more restricted but remains detectable in brain and selected cell types, reflecting its specialized regulatory roles. Cell-type-specific expression patterns underscore the importance of PRDM8 in tightly controlled developmental and differentiation processes.

From a disease-relevance perspective, PRDM8 has been investigated in the context of neurodevelopmental disorders and cancer biology. Dysregulation of PRDM family proteins can disrupt normal epigenetic control and transcriptional balance, contributing to aberrant cell proliferation or differentiation. Altered PRDM8 expression has been reported in certain tumor types, where changes in chromatin regulation may support malignant transformation or progression. These findings have positioned PRDM8 as a molecule of interest in studies of epigenetic dysregulation and disease-associated transcriptional remodeling.

At the molecular level, PRDM8 contains multiple zinc finger domains that enable sequence-specific DNA binding and protein-protein interactions. Isoform diversity, post-translational modifications, and interaction with chromatin-associated factors can influence its regulatory activity and electrophoretic behavior on SDS-PAGE without implying changes in primary sequence. A PRDM8 antibody supports research applications focused on nuclear protein expression,

transcriptional regulation, and disease-associated changes in epigenetic control, with NSJ Bioreagents providing reagents intended for research use.

Application Notes

Optimal dilution of the PRDM8 antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids D14-D405) was used as the immunogen for the PRDM8 antibody.

Storage

After reconstitution, the PRDM8 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.