

PRDM14 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1214a

Specification

PRDM14 Antibody (N-term) - Product Information

Application	IF, WB, IHC-P,E
Primary Accession	O9GZV8
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1-30

PRDM14 Antibody (N-term) - Additional Information

Gene ID 63978

Other Names

PR domain zinc finger protein 14, 211-, PR domain-containing protein 14, PRDM14

Target/Specificity

This PRDM14 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human PRDM14.

Dilution

IF~~1:10~50
WB~~1:1000
IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

PRDM14 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PRDM14 Antibody (N-term) - Protein Information

Name PRDM14

Function Transcription factor that has both positive and negative roles on transcription. Required for the maintenance of embryonic stem cell identity and the reacquisition of pluripotency in

somatic cells. May play an essential role in germ cell development at 2 levels: the reacquisition of potential pluripotency, including SOX2 up-regulation, and successful epigenetic reprogramming, characterized by EHMT1 repression. Its association with CBFA2T2 is required for the functions in pluripotency and germ cell formation (By similarity). Directly up- regulates the expression of pluripotency gene POU5F1 through its proximal enhancer. Binds to the DNA consensus sequence 5'-GGTC[TC]CTAA- 3'.

Cellular Location

Nucleus.

Tissue Location

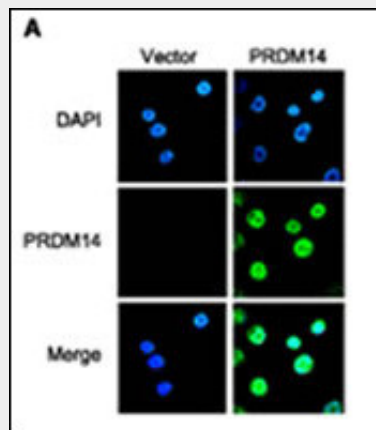
Expressed in embryonic stem cells. Tends to be overexpressed in breast cancer (at protein level)

PRDM14 Antibody (N-term) - Protocols

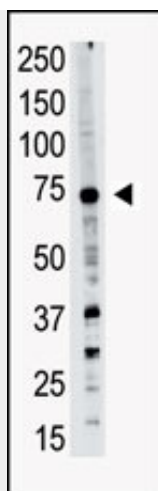
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

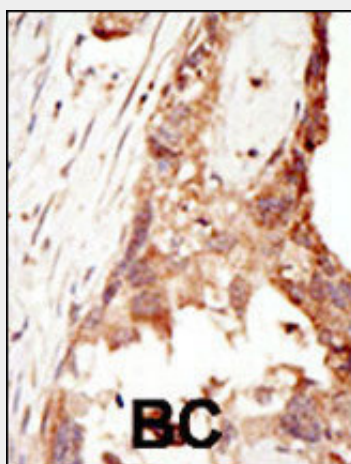
PRDM14 Antibody (N-term) - Images



IF analysis of PRDM14 in breast cancer cells. SKBr-3 cells were transfected with pCMV-Tag2A or pCMV-PRDM14 and then labeled with anti-PRDM14 antibody. The nucleus was stained with DAPI.



Western blot analysis of PRDM14 polyclonal antibody (Cat. #AP1214a) in A549 cell lysate. PRDM14 (arrow) was detected using purified Pab. Secondary HRP-anti-rabbit was used for signal visualization with chemiluminescence.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

PRDM14 Antibody (N-term) - Background

Similar to acetylation and phosphorylation, histone methylation at the N terminal tail has emerged as an important role in regulating chromatin dynamics and gene activity. Histone methylation occurs on arginine and lysine residues and is catalyzed by two families of proteins, the protein arginine methyltransferase family and the SET domain containing methyltransferase family. Five members have been identified in the arginine methyltransferase family. About 27 are grouped into the SET domain family, and another 17 make up the PR domain family that is related to the SET domain family.

PRDM14 is part of a family of PR domain genes that are involved in tumorigenesis. It may function as a transcription factor.

PRDM14 Antibody (N-term) - References

- Xiao, B., et al., *Curr. Opin. Struct. Biol.* 13(6):699-705 (2003).
- Dias Neto, E., et al., *Proc. Natl. Acad. Sci. U.S.A.* 97(7):3491-3496 (2000).

Jiang, G.L., et al., Histol. Histopathol. 15(1):109-117 (2000).

PRDM14 Antibody (N-term) - Citations

- [Human primordial germ cell commitment in vitro associates with a unique PRDM14 expression profile.](#)
- [PRDM14 suppresses expression of differentiation marker genes in human embryonic stem cells.](#)
- [Gene amplification and overexpression of PRDM14 in breast cancers.](#)
- [PRDM5 identified as a target of epigenetic silencing in colorectal and gastric cancer.](#)