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Blimp-1/PRDI-BF1 (C14A4) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP, IF-IC, FC-FP	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 95-100	Source/Isotype: Rabbit IgG	UniProt ID: #O75626	Entrez-Gene Id: 639
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Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:100
1:100
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #89036.

Specificity/Sensitivity

Blimp-1/PRDI-BF1 (C14A4) Rabbit mAb detects endogenous levels of total Blimp-1/PRDI-BF1 protein.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val90 of human PRDI-BF1 isoform 2.

Background

Blimp-1 (B lymphocyte-induced maturation protein) is a nuclear zinc-finger containing transcriptional repressor that is considered a master regulator of terminal B cell development (1). The human homolog, PRDI-BF1, was identified by its ability to bind to the PRDI element on the IFN-β promoter and can inhibit virus-mediated IFN-β production (2). Expression of Blimp-1 is sufficient to drive terminal differentiation of BCL1 lymphoma cells into antibody secreting plasma cells, increasing the expression of the cell surface marker Syndecan-1 (1). In the B cell lineage, Blimp-1 is specifically expressed in antibody-secreting cells including activated B and plasma cells. In addition, Blimp-1 has been found during macrophage differentiation (3) and in a subset of T cells (4,5), suggesting it may play a wider role in homeostasis and differentiation (6). Mechanistically, Blimp-1 is thought to act by recruiting chromatin-modifying enzymes including histone deacetylases (7) and methyltransferases (8,9). Target genes of Blimp-1 transcriptional repression with potential roles in differentiation include c-Myc (10), CIITA (11), Pax5 (12), Spi-B, and Id3 (13).

Background References

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4. Kallies, A. et al. (2006) *Nat Immunol* 7, 466-74.
5. Martins, G.A. et al. (2006) *Nat Immunol* 7, 457-65.
6. Kallies, A. and Nutt, S.L. (2007) *Curr Opin Immunol* 19, 156-62.
7. Yu, J. et al. (2000) *Mol Cell Biol* 20, 2592-603.
8. Gyory, I. et al. (2004) *Nat Immunol* 5, 299-308.
9. Ancelin, K. et al. (2006) *Nat Cell Biol* 8, 623-30.
10. Lin, Y. et al. (1997) *Science* 276, 596-9.
11. Chen, H. et al. (2007) *Mol Immunol* 44, 1461-70.
12. Lin, K.I. et al. (2002) *Mol Cell Biol* 22, 4771-80.
13. Shaffer, A.L. et al. (2006) *Immunol Rev* 210, 67-85.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-
FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse

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