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

#9115 Store at –20°C

☑ 100 µl
(10 western blots)

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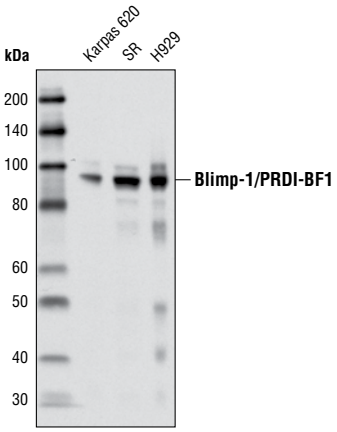
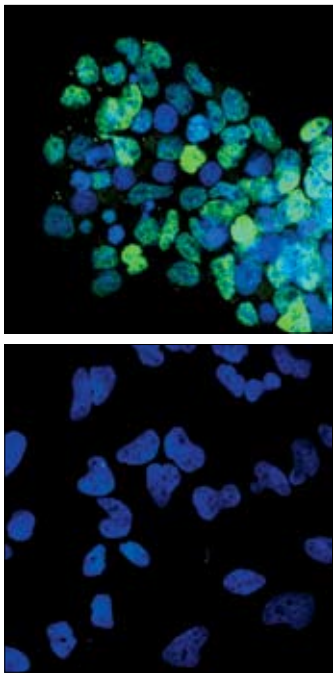
Entrez-Gene ID #639
Swiss-Prot Acc. #O75626

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IP, IF-IC Endogenous	H, M, (Mk)	95-100 kDa	Rabbit IgG**

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).



Western blot analysis of extracts from Karpas 620, SR and H929 cell lines using Blimp-1/PRDI-BF1 (C14A4) Rabbit mAb.



Confocal immunofluorescent analysis of SR (upper) and HeLa cells (lower) using Blimp-1/PRDI-BF1 (C14A4) Rabbit mAb (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val90 of human PRDI-BF1.

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.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (IF-IC)	1:100

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

Background References:

(1) Turner, C.A. et al. (1994) *Cell* 77, 297–306.
(2) Keller, A.D. and Maniatis, T. (1991) *Genes Dev* 5, 868–79.
(3) Chang, D.H. et al. (2000) *Nat Immunol* 1, 169–76.
(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.
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(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.

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

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.