

Bim Antibody

✓ 100 µl
(10 western blots)

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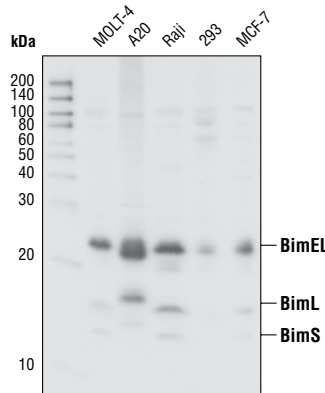
rev. 03/15/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP, IF-IC, F Endogenous	H, M, R, (Mk)	23 kDa, 15 kDa, 12 kDa	Rabbit**

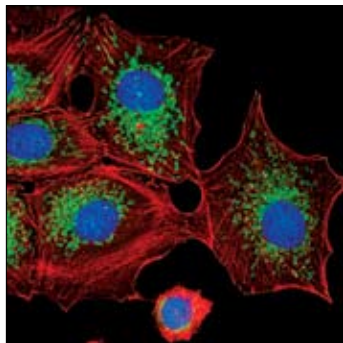
Background: Bim/Bod is a pro-apoptotic protein belonging to the -BH3-only+ group of Bcl-2 family members (that includes Bad, Bid, Bik, Hrk and Noxa) containing a BH3 domain but lacking other conserved domains, BH1 or BH2 (1,2). Bim induces apoptosis by binding to and antagonizing anti-apoptotic members of the Bcl-2 family. Interactions have been observed with Bcl-2, Bcl-xL, Mcl-1, Bcl-w, Bfl-1 and BHRF-1 (1,2). Particular functions for Bim have been described in the regulation of apoptosis associated with thymocyte negative selection and following growth factor withdrawal, during which Bim expression is elevated (3-6). Three major isoforms of Bim are generated by alternative splicing: BimEL, BimL and BimS (1). The shortest form, BimS, is the most cytotoxic and is generally only transiently expressed during apoptosis. The other isoforms, BimEL and BimL, may be sequestered to the dynein motor complex through an interaction with the dynein light chain and released from this complex during apoptosis (7). Apoptotic activity of these longer isoforms may be regulated by phosphorylation (8,9). Environmental stress triggers Bim phosphorylation by JNK, resulting in dissociation with the dynein complex and increased apoptotic activity.

Specificity/Sensitivity: Bim Antibody (IF Preferred) detects endogenous levels of total Bim (EL, L and S isoforms) protein.

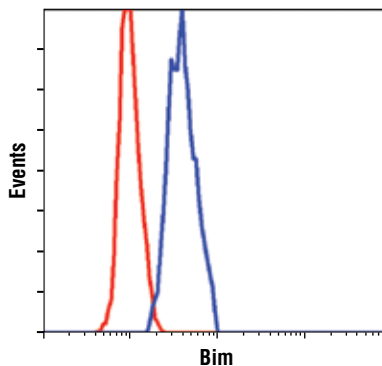


Western blot analysis of extracts from MOLT-4, A20, Raji, 293 and MCF-7 cell lines using Bim Antibody.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human Bim. Antibodies are purified by protein A and peptide affinity chromatography.



Confocal immunofluorescent analysis of HeLa cells using Bim Antibody (green). Actin filaments have been labeled with Alexa Fluor® 555 phalloidin (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Flow cytometric analysis of Raji cells using Bim Antibody (blue) compared to a nonspecific negative control antibody (red).

Entrez-Gene ID #10018
Swiss-Prot Acc. #O43521

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. 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	1:200
Immunofluorescence (IF-IC)	1:400
Flow Cytometry	1:200

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:

- O'Connor, L. et al. (1998) *EMBO J.* 17, 384–395.
- Hsu, S.Y. et al. (1998) *Mol. Endocrinol.* 12, 1432–1440.
- Bouillet, P. et al. (2002) *Nature* 415, 922–926.
- Whitfield, J. et al. (2001) *Neuron* 29, 629–643.
- Dijkers, P.F. et al. (2000) *Curr. Biol.* 10, 1201–1204.
- Ley, R. et al. (2003) *J. Cell Biol.* 278, 18811–18816.
- Puthalakath, H. et al. (1999) *Mol. Cell* 3, 287–296.
- Lei, K. and Davis, R.J. (2003) *Proc. Natl. Acad. Sci. USA* 100, 2432–2437.
- Putcha, G.V. et al. (2003) *Neuron* 38, 899–914.

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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.