Bim (C34C5) Rabbit mAb (PE Conjugate)

#12186 Store at 4°C

☑ 100 µl
(50 tests)

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #10018
UniProt ID #O43521

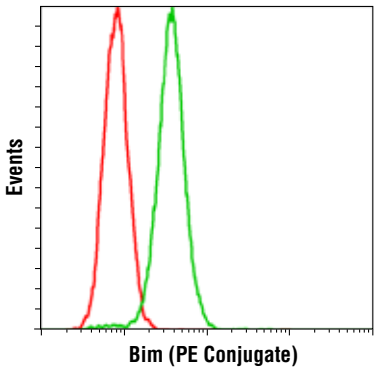
Applications	Species Cross-Reactivity*	Isotype
F Endogenous	H, M, R (Mk, B, Dg)	Rabbit IgG

Description: This Cell Signaling Technology antibody is conjugated to phycoerythrin (PE) and tested in-house for direct flow cytometry analysis in human cells. The antibody is expected to exhibit the same species cross-reactivity as the unconjugated Bim (C34C5) Rabbit mAb #2933.

Background: Bim/Bod is a pro-apoptotic protein belonging to the BH3-only group of Bcl-2 family members including Bad, Bid, Bik, Hrk, and Noxa that contain a BH3 domain but lack other conserved BH1 or BH2 domains (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). Bim functions in regulating 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: Bim_{EL}, Bim_{L}, and Bim_{S} (1). The shortest form, Bim_{S}, is the most cytotoxic and is generally only transiently expressed during apoptosis. The Bim_{EL} and Bim_{L} isoforms 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 and results in its dissociation from the dynein complex and increased apoptotic activity.

Specificity/Sensitivity: Bim (C34C5) Rabbit mAb (PE Conjugate) recognizes endogenous levels of total Bim protein (EL, L, and S isoforms).

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro25 of Bim protein.



Flow cytometric analysis of HeLa cells using Bim (C34C5) Rabbit mAb (PE Conjugate) (green) compared to concentration-matched Rabbit (DA1E) mAb IgG XP® Isotype Control (PE Conjugate) #5742 (red).

Storage: Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. *Do not aliquot the antibody. Protect from light. Do not freeze.*

***Species cross-reactivity other than human is determined by western blot using the unconjugated antibody.**

Recommended Antibody Dilutions:

Flow Cytometry	1:50

For product 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) O'Connor, L. et al. (1998) *EMBO J* 17, 384-95.
(2) Hsu, S.Y. et al. (1998) *Mol Endocrinol* 12, 1432-40.
(3) Bouillet, P. et al. (2002) *Nature* 415, 922-6.
(4) Whitfield, J. et al. (2001) *Neuron* 29, 629-43.
(5) Dijkers, P.F. et al. (2000) *Curr Biol* 10, 1201-4.
(6) Ley, R. et al. (2003) *J Biol Chem* 278, 18811-6.
(7) Puthalakath, H. et al. (1999) *Mol Cell* 3, 287-96.
(8) Lei, K. and Davis, R.J. (2003) *Proc Natl Acad Sci USA* 100, 2432-7.
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U.S. Patent No. 5,675,063

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.