

#12433 Store at -20°C

Phospho-Bim (Ser77) (D4H12) Rabbit mAb


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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M	Endogenous	26	Rabbit IgG	#O43521	10018

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:100
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.	
Specificity / Sensitivity	Phospho-Bim (Ser77) (D4H12) Rabbit mAb recognizes endogenous levels of Bim protein only when phosphorylated at Ser77.	
Species predicted to react based on 100% sequence homology:	Monkey	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser77 of human Bim protein.	
Background	<p>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.</p> <p>MAP kinase dependent phosphorylation of Bim at multiple sites, including Ser55, Ser65, and Ser73 in mouse (Ser59, Ser69, and Ser77 in human), can promote proteasomal degradation of Bim and inhibition of apoptosis (10).</p>	
Background References	<ol style="list-style-type: none"> O'Connor, L. et al. (1998) <i>EMBO J</i> 17, 384-95. Hsu, S.Y. et al. (1998) <i>Mol Endocrinol</i> 12, 1432-40. Bouillet, P. et al. (2002) <i>Nature</i> 415, 922-6. Whitfield, J. et al. (2001) <i>Neuron</i> 29, 629-43. Dijkers, P.F. et al. (2000) <i>Curr Biol</i> 10, 1201-4. Ley, R. et al. (2003) <i>J Biol Chem</i> 278, 18811-6. Puthalakath, H. et al. (1999) <i>Mol Cell</i> 3, 287-96. Lei, K. and Davis, R.J. (2003) <i>Proc Natl Acad Sci U S A</i> 100, 2432-7. Putcha, G.V. et al. (2003) <i>Neuron</i> 38, 899-914. Hübner, A. et al. (2008) <i>Mol Cell</i> 30, 415-25. 	

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**WB:** Western Blotting **IP:** Immunoprecipitation**Cross-Reactivity Key****H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected**Trademarks and Patents**

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