

**#4581** Store at -20°C

# Phospho-Bim (Ser69) Antibody


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

<b>Product Usage Information</b>	<b>Application</b> Western Blotting Immunoprecipitation	<b>Dilution</b> 1:1000 1:50
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	Phospho-Bim (Ser69) Antibody detects endogenous levels of Bim protein only when phosphorylated at Ser69.	
<b>Species predicted to react based on 100% sequence homology:</b>	Rat, Monkey, Dog	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser69 of human Bim protein (Ser65 in mouse and rat). Antibodies are purified by peptide affinity chromatography.	
<b>Background</b>	<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<sub>EL</sub>, Bim<sub>L</sub>, and Bim<sub>S</sub> (1). The shortest form, Bim<sub>S</sub>, is the most cytotoxic and is generally only transiently expressed during apoptosis. The Bim<sub>EL</sub> and Bim<sub>L</sub> 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>Erk1/2-dependent phosphorylation of Bim<sub>EL</sub> at Ser69 (Ser65 in mouse and rat) in response to growth factor stimulation can promote its proteasome-mediated degradation and enhance cell survival (6,10,11).</p>	
<b>Background References</b>	<ol style="list-style-type: none"> <li>O'Connor, L. et al. (1998) <i>EMBO J</i> 17, 384-95.</li> <li>Hsu, S.Y. et al. (1998) <i>Mol Endocrinol</i> 12, 1432-40.</li> <li>Bouillet, P. et al. (2002) <i>Nature</i> 415, 922-6.</li> <li>Whitfield, J. et al. (2001) <i>Neuron</i> 29, 629-43.</li> <li>Dijkers, P.F. et al. (2000) <i>Curr Biol</i> 10, 1201-4.</li> <li>Ley, R. et al. (2003) <i>J Biol Chem</i> 278, 18811-6.</li> <li>Puthalakath, H. et al. (1999) <i>Mol Cell</i> 3, 287-96.</li> <li>Lei, K. and Davis, R.J. (2003) <i>Proc Natl Acad Sci U S A</i> 100, 2432-7.</li> <li>Putcha, G.V. et al. (2003) <i>Neuron</i> 38, 899-914.</li> <li>Luciano, F. et al. (2003) <i>Oncogene</i> 22, 6785-6793.</li> <li>Marani, M. et al. (2004) <i>Oncogene</i> 23, 2431-2441.</li> </ol>	

## 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

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