

#9291 Store at -20°C

Phospho-Bad (Ser112) Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	23	Rabbit	#Q92934	572

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:50
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.	
Specificity / Sensitivity	Phospho-Bad (Ser112) Antibody detects endogenous levels of Bad only when phosphorylated at Ser112. The Ser112 nomenclature is based upon the mouse sequence. The analogous phosphorylation site is Ser75 in human and Ser113 in rat. This antibody does not detect Bad phosphorylated at other sites, nor does it detect related family members.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser112 of mouse Bad. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Bad is a proapoptotic member of the Bcl-2 family that promotes cell death by displacing Bax from binding to Bcl-2 and Bcl-xL (1,2). Survival factors, such as IL-3, inhibit the apoptotic activity of Bad by activating intracellular signaling pathways that result in the phosphorylation of Bad at Ser112 and Ser136 (2). Phosphorylation at these sites promotes binding of Bad to 14-3-3 proteins to prevent an association between Bad with Bcl-2 and Bcl-xL (2). Akt phosphorylates Bad at Ser136 to promote cell survival (3,4). Bad is phosphorylated at Ser112 both <i>in vivo</i> and <i>in vitro</i> by p90RSK (5,6) and mitochondria-anchored PKA (7). Phosphorylation at Ser155 in the BH3 domain by PKA plays a critical role in blocking the dimerization of Bad and Bcl-xL (8-10).	
Background References	1. Yang, E. et al. (1995) <i>Cell</i> 80, 285-291. 2. Zha, J. et al. (1996) <i>Cell</i> 87, 619-628. 3. Datta, S.R. et al. (1997) <i>Cell</i> 91, 231-241. 4. Peso, L. et al. (1997) <i>Science</i> 278, 687-689. 5. Bonni, A. et al. (1999) <i>Science</i> 286, 1358-1362. 6. Tan, Y. et al. (1999) <i>J. Biol. Chem.</i> 274, 34859-34867. 7. Harada, H. et al. (1999) <i>Mol. Cell</i> 3, 413-422. 8. Tan, Y. et al. (2000) <i>J. Biol. Chem.</i> 275, 25865-25869. 9. Lizcano, J. et al. (2000) <i>Biochem. J.</i> 349, 547-557. 10. Datta, S. et al. (2000) <i>Mol. Cell</i> 6, 41-51.	

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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