

#9292 Store at -20°C

Bad Antibody

100 µl
 (10 western blots)



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**This product is for *in vitro* research use only and is not intended for use in humans or animals.
 This product is not intended for use as a therapeutic or in diagnostic procedures.**

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M, R, Mk	23 kDa	Rabbit**

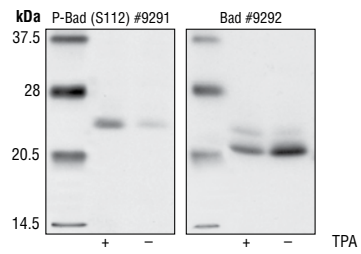
Background: Bad is a proapoptotic member of the Bcl-2 family that promotes cell death by displacing Bax from binding to Bcl-2 and Bcl-xL (1,2). Survival factors such as IL-3 inhibit the apoptotic activity of Bad by activating intracellular signaling pathways resulting in the phosphorylation of Bad at Ser112 and Ser136 (2). Phosphorylation at these sites prevents the association between Bad and Bcl-2 and Bcl-xL by promoting the binding of Bad to 14-3-3 protein (2). Akt promotes cell survival via its ability to phosphorylate Bad at Ser136 (3,4). Bad is phosphorylated at Ser112 both *in vivo* and *in vitro* by p90RSK (5,6) and mitochondria-anchored PKA (7). Phosphorylation of Ser155 in the BH3 domain by PKA plays a critical role in blocking the dimerization of Bad and Bcl-xL (8-10).

Specificity/Sensitivity: Bad Antibody detects endogenous levels of total Bad protein. The antibody does not cross-react with related proteins.

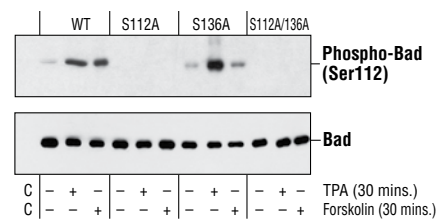
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide (KLH-coupled) corresponding to residues surrounding Ser112 of mouse Bad. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- Yang, E. et al. (1995) *Cell* 80, 285-291.
- Zha, J. et al. (1996) *Cell* 87, 619-628.
- Datta, S.R. et al. (1997) *Cell* 91, 231-241.
- Peso, L. et al. (1997) *Science* 278, 687-689.
- Bonni, A. et al. (1999) *Science* 286, 1358-1362.
- Tan, Y. et al. (1999) *J. Biol. Chem.* 274, 34859-34867.
- Harada, H. et al. (1999) *Mol. Cell* 3, 413-422.
- Tan, Y. et al. (2000) *J. Biol. Chem.* 275, 25865-25869.
- Lizcano, J. et al. (2000) *Biochem. J.* 349, 547-557.
- Datta, S. et al. (2000) *Mol. Cell* 6, 41-51



Western blot analysis of extracts from COS cells, untreated or TPA-treated, using Bad Antibody (right) or Phospho-Bad (Ser112) Antibody #9291 (left).



Western blot analysis of extracts from 293 cells transfected with Wild-type Bad, Bad (Ser112A), Bad (S136A) or Bad (S112A/S136A), untreated, TPA-treated or forskolin-treated, using Phospho-Bad (Ser112) Antibody #9291 (top), Phospho-Bad (Ser136) Antibody #9295 (middle) or Bad Antibody (bottom).

Entrez-Gene ID #572
Swiss-Prot Acc. #Q92934

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 1:50

For application specific protocols please see the web page for this product at www.cellsignaling.com.

Please visit www.cellsignaling.com for a complete listing of recommended companion products.

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—zebra fish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae All—all species expected Species enclosed in parentheses are predicted to react based on 100% sequence homology.