

Phospho-Bad (Ser136) (5D8) Mouse mAb

✓ 0.15 mg

Orders ■ 877-616-CELL (2355)
orders@cellsignal.com

Support ■ 877-678-TECH (8324)
info@cellsignal.com

Web ■ www.cellsignal.com

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This product is for *in vitro* research use only and is not intended for use in humans or animals.

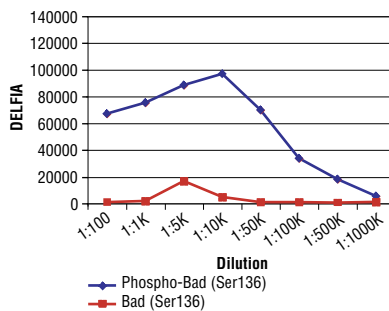
| Applications | Species Cross-Reactivity | Molecular Wt. | Source |
|--------------|--------------------------|---------------|--------|
| E-P | H | 23 kDa | Mouse |

Description: This antibody is formulated in PBS (no BSA/ no glycerol) and quality controlled for use in ELISA and other drug discovery applications. This is a sample antibody and intended for use by drug discovery scientists.

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: Phospho-Bad (Ser136) (5D8) Mouse mAb can be used in high throughput kinase assays and drug discovery applications. It detects peptides derived from Bad phosphorylated at residue 136.

Source/Purification: Monoclonal antibody is produced by immunizing mice with a synthetic phospho-peptide (KLH-coupled) corresponding to residues surrounding Ser136 of Bad. Antibody is purified by protein G affinity chromatography



Validation of Phospho-Bad (Ser136) (5D8) Mouse mAb in peptide DELFIA® assay using biotinylated phospho-, nonphospho-peptide controls, and DELFIA® secondary antibodies (available from Perkin Elmer Life and Analytical Sciences).

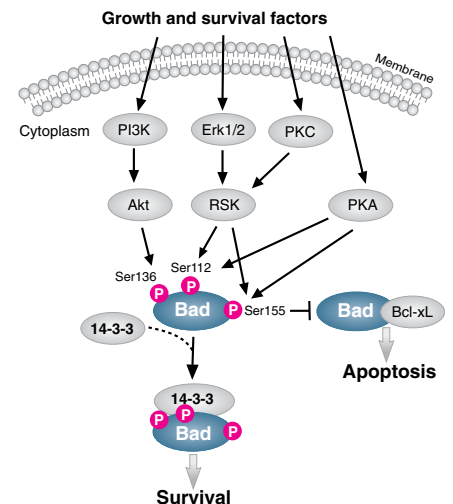
Background References:

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

Storage: Supplied in 58 mM Na₂HPO₄, 17 mM NaH₂PO₄ and 68 mM NaCl (pH 7.4). Store at 4°C. Do not aliquot the antibody.

Companion Products:

Serine/Threonine Kinase Substrate Screening Kit #7400
Phospho-Bad (Ser112) (7E11) Monoclonal Antibody #5280
PhosphoPlus® Bad (Ser112/136) Antibody Kit #9290
Phospho-Bad (Ser112) Antibody #9291
Bad Antibody #9292
Bad Control Proteins #9293
pEBG-mBad #9294
Phospho-Bad (Ser136) Antibody #9295
Phospho-Bad (Ser155) Antibody #9297



Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry IC—Immunocytochemistry IF—Immunofluorescence
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken X—Xenopus
Species enclosed in parentheses are predicted to react based on 100% sequence homology.

F—Flow cytometry E—ELISA D—DELFIATM
Z—zebra fish B—bovine All—all species expected