

# p-Bad (Ser 136): sc-7999

## BACKGROUND

Phosphorylation of Bad, a pro-apoptotic member of the Bcl-2 protein family, on either Serine 112 or Serine 136 is thought to be necessary and sufficient for growth factors to promote cell survival. Serine 155 is a major site of phosphorylation by protein kinase A (PKA) and serum-induced kinases. Serine 155 phosphorylation requires the prior phosphorylation of Serine 136, which recruits 14-3-3 proteins that then function to increase the accessibility of Serine 155 to survival-promoting kinases. Like Serine 112 and Serine 136, phosphorylation of Serine 155 inhibits the pro-apoptotic function of Bad. Serine 155 phosphorylation disrupts the binding of Bad to pro-survival Bcl-2 proteins and thereby promotes cell survival.

## CHROMOSOMAL LOCATION

Genetic locus: BAD (human) mapping to 11q13.1; Bad (mouse) mapping to 19 A.

## SOURCE

p-Bad (Ser 136) is available as either goat (sc-7999) or rabbit (sc-7999-R) polyclonal affinity purified antibody raised against a short amino acid sequence containing Ser 136 phosphorylated Bad of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7999 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

p-Bad (Ser 136) is recommended for detection of Ser 136 phosphorylated Bad of mouse origin and correspondingly phosphorylated Ser 137 of rat origin and Ser 99 phosphorylated Bad of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-Bad (Ser 136) is also recommended for detection of correspondingly phosphorylated Bad in additional species, including equine and bovine.

Suitable for use as control antibody for Bad siRNA (h): sc-29778, Bad siRNA (m): sc-29779, Bad shRNA Plasmid (h): sc-29778-SH, Bad shRNA Plasmid (m): sc-29779-SH, Bad shRNA (h) Lentiviral Particles: sc-29778-V and Bad shRNA (m) Lentiviral Particles: sc-29779-V.

Molecular Weight (predicted) of p-Bad: 22 kDa.

Molecular Weight (observed) of p-Bad: 23/28 kDa.

Positive Controls: HeLa + Calyculin A cell lysate: sc-2271.

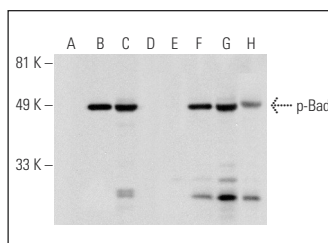
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



Western blot analysis of Bad phosphorylation in non-transfected: sc-117752 (A,E), untreated human Bad transfected: sc-170552 (B,F), PMA treated human Bad transfected: sc-170552 (C,G) and PMA and lambda protein phosphatase (sc-200312A) treated human Bad transfected: sc-170552 (D,H) 293T whole cell lysates. Antibodies tested include p-Bad (Ser 136)-R: sc-7999-R (A-D) and Bad (H-168): sc-7869 (E-H).

## SELECT PRODUCT CITATIONS

- Malina, H.Z., et al. 2003. Abnormal signalling of 14-3-3 proteins in cells with accumulated xanthurenic acid. *Biochem. Biophys. Res. Commun.* 310: 646-650.
- Jesmin, S., et al. 2003. Estrogen deprivation and replacement modulate cerebral capillary density with vascular expression of angiogenic molecules in middle-aged female rats. *J. Cereb. Blood Flow Metab.* 23: 181-189.
- Machado-Neto, J.A., et al. 2011. Knockdown of Insulin receptor substrate 1 reduces proliferation and downregulates Akt/mTOR and MAPK pathways in K562 cells. *Biochim. Biophys. Acta* 1813: 1404-1411.
- Castro-Caldas, M., et al. 2012. Tauroursodeoxycholic acid prevents MPTP-induced dopaminergic cell death in a mouse model of Parkinson's disease. *Mol. Neurobiol.* 46: 475-486.
- Lopez, J., et al. 2012. Src tyrosine kinase inhibits apoptosis through the Erk1/2- dependent degradation of the death accelerator Bik. *Cell Death Differ.* 19: 1459-1469.
- Seal, S., et al. 2012. Vapor of volatile oils from *Litsea cubeba* seed induces apoptosis and causes cell cycle arrest in lung cancer cells. *PLoS ONE* 7: e47014.
- Das, A., et al. 2012. Inhibition of ROS-induced apoptosis in endothelial cells by nitron spin traps via induction of phase II enzymes and suppression of mitochondria-dependent pro-apoptotic signaling. *Biochem. Pharmacol.* 84: 486-497.

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