

p-Bad (Ser 112): sc-101640

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 prosurvival Bcl-2 proteins and thereby promotes cell survival.

REFERENCES

1. Virdee, K., et al. 2000. Phosphorylation of the pro-apoptotic protein Bad on Serine 155, a novel site, contributes to cell survival. *Curr. Biol.* 10: 1151-1154.
2. Salomoni, P., et al. 2000. Versatility of Bcr/Abl-expressing leukemic cells in circumventing proapoptotic Bad effects. *Blood* 96: 676-684.

CHROMOSOMAL LOCATION

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

SOURCE

p-Bad (Ser 112) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 112 phosphorylated Bad of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-Bad (Ser 112) is recommended for detection of Ser 112 phosphorylated Bad of mouse origin, correspondingly phosphorylated Ser 75 of human origin and correspondingly phosphorylated Ser 113 of rat 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

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.

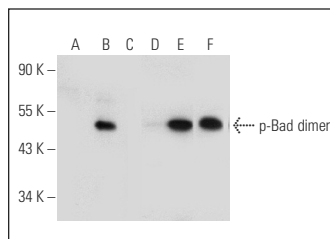
Molecular Weight (observed) of p-Bad: 23/28 kDa.

Positive Controls: HeLa + Calyculin A cell lysate: sc-2271 or Bad (h3): 293T Lysate: sc-170552.

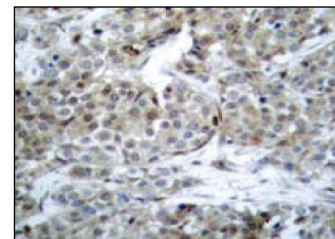
STORAGE

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

DATA



Western blot analysis of Bad phosphorylation in non-transfected: sc-117752 (A,D), untreated human Bad transfected: sc-170552 (B,E) and lambda protein phosphatase (sc-200312A) treated human Bad transfected: sc-170552 (C,F) 293T whole cell lysates. Antibodies tested include p-Bad (Ser 112): sc-101640 (A,B,C) and Bad (H-168): sc-7869 (D,E,F).



p-Bad (Ser 112): sc-101640. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue extract showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Murugan, R.S., et al. 2010. Intrinsic apoptosis and NFκB signaling are potential molecular targets for chemoprevention by black tea polyphenols in Hep G2 cells *in vitro* and in a rat hepatocarcinogenesis model *in vivo*. *Food Chem. Toxicol.* 48: 3281-3287.
2. Vinothini, G., et al. 2011. Mitochondria-mediated apoptosis in patients with adenocarcinoma of the breast: correlation with histological grade and menopausal status. *Breast* 20: 86-92.
3. Thiyagarajan, P., et al. 2011. Dietary chlorophyllin inhibits the canonical NFκB signaling pathway and induces intrinsic apoptosis in a hamster model of oral oncogenesis. *Food Chem. Toxicol.* 50: 867-876.
4. Zhang, S., et al. 2013. P2Y12 protects platelets from apoptosis via PI3k-dependent Bak/Bax inactivation. *J. Thromb. Haemost.* 11: 149-160.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



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Try **p-Bad (C-10): sc-166932**, our highly recommended monoclonal alternative to p-Bad (Ser 112).