SANTA CRUZ BIOTECHNOLOGY, INC.

p-Bad (C-10): sc-166932

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

p-Bad (C-10) is a mouse monoclonal antibody specific for an epitope containing Ser 112 phosphorylated Bad of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p-Bad (C-10) is available conjugated to agarose (sc-166932 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166932 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166932 PE), fluorescein (sc-166932 FITC), Alexa Fluor® 488 (sc-166932 AF488), Alexa Fluor® 546 (sc-166932 AF546), Alexa Fluor® 594 (sc-166932 AF594) or Alexa Fluor® 647 (sc-166932 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166932 AF680) or Alexa Fluor® 790 (sc-166932 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166932 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

p-Bad (C-10) is recommended for detection of Ser 112 phosphorylated Bad of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

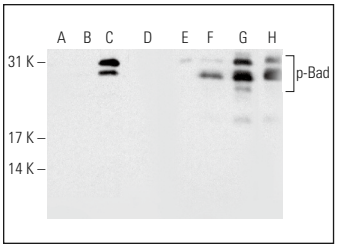
Molecular Weight (observed) of p-Bad: 23/28 kDa.

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

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

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 (C-10): sc-166932 (**A**,**B**,**C**,**D**) and Bad (H-168): sc-7869 (**E**,**F**,**G**,**H**).

SELECT PRODUCT CITATIONS

1. Eid, R.A., et al. 2018. Ghrelin prevents cardiac cell apoptosis during cardiac remodelling post experimentally induced myocardial infarction in rats via activation of Raf-MEK1/2-ERK1/2 signalling. Arch. Physiol. Biochem. 15: 1-11.
2. Liu, J., et al. 2018. Lewis(y) antigen-mediated positive feedback loop induces and promotes chemotherapeutic resistance in ovarian cancer. Int. J. Oncol. 53: 1774-1786.

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.

PROTOCOLS

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