SANTA CRUZ BIOTECHNOLOGY, INC.

p-Bim (Ser 69): sc-133283

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The Power to Question

BACKGROUND

Pro-apototic Bcl-2 family members promote cell death by neutralizing their anti-apoptotic relatives, which otherwise maintain cell viability by regulating caspase activity. Bim belongs to the BH3-only subgroup of Bcl-2 related proteins, and exists in three distinct isoforms, Bim_S (short), Bim_L (long) and Bim_{EL} (extra long). ERK 1/2 phosphorylates Bim_{EL} at Ser 69, resulting in rapid degradation of the isoform via the proteasome pathway. At least three sites for ERK 1/2 phosphorylation exist on Bim_{EL}, whereas ERK 1/2 does not effect Bim_S and Bim_L, implying a unique role for Bim_{EL} in cell survival signaling.

REFERENCES

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3. Luciano, F., et al. 2003. Phosphorylation of BimEL by ERK 1/2 on Serine 69 promotes its degradation via the proteasome pathway and regulates its proapoptotic function. Oncogene 22: 6785-6793.
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5. Harada, H., et al. 2004. Survival factor-induced extracellular signal-regulated kinase phosphorylates Bim, inhibiting its association with Bax and proapoptotic activity. Proc. Natl. Acad. Sci. USA 101: 15313-15317.
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8. Wang, P., et al. 2004. Bim is an apoptosis sensor that responds to loss of survival signals delivered by epidermal growth factor but not those provided by integrins. J. Biol. Chem. 279: 41280-41285.
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CHROMOSOMAL LOCATION

Genetic locus: BCL2L11 (human) mapping to 2q13; Bcl2l11 (mouse) mapping to 2 F1.

SOURCE

p-Bim (Ser 69) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser 69 phosphorylated Bim of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-133283 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

p-Bim (Ser 69) is recommended for detection of Ser 69 phosphorylated Bim of human origin and correspondingly Ser 65 phosphorylated Bim of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Bim siRNA (h): sc-29802, Bim siRNA (m): sc-29803, Bim shRNA Plasmid (h): sc-29802-SH, Bim shRNA Plasmid (m): sc-29803-SH, Bim shRNA (h) Lentiviral Particles: sc-29802-V and Bim shRNA (m) Lentiviral Particles: sc-29803-V.

Molecular Weight of p-Bim: 22 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

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