

Bim_{EL} (N-17): sc-27982

BACKGROUND

Pro-apoptotic 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). ERK1/2 phosphorylates Bim_{EL}, resulting in rapid degradation of the isoform via the proteasome pathway. At least three sites for ERK1/2 phosphorylation exist on Bim_{EL}, whereas ERK1/2 does not effect Bim_S and Bim_L, implying a unique role for Bim_{EL} in cell survival signaling.

REFERENCES

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2. Seward, R.J., et al. 2003. Phosphorylation of the pro-apoptotic protein Bim in lymphocytes is associated with protection from apoptosis. *Mol. Immunol.* 39: 983-993.
3. Luciano F, et al. 2003. Phosphorylation of Bim_{EL} by Erk1/2 on Serine 69 promotes its degradation via the proteasome pathway and regulates its proapoptotic function. *Oncogene* 22: 6785-6793.
4. Ley, R., et al. 2004. Extracellular Signal-regulated kinases 1/2 are serum-stimulated "Bim_{EL} kinases" that bind to the BH3-only protein Bim_{EL} causing its phosphorylation and turnover. *J. Biol. Chem.* 279: 8837-8847.
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.
6. Gomez-Bougie, P., et al. 2004. The imbalance between Bim and Mcl-1 expression controls the survival of human myeloma cells. *Eur. J. Immunol.* 34: 3156-3164.
7. Herrant, M., et al. 2004. Cleavage of Mcl-1 by caspases impaired its ability to counteract Bim-induced apoptosis. *Oncogene* 23: 7863-7873.
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.

CHROMOSOMAL LOCATION

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

SOURCE

Bim_{EL} (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Bim_{EL} of human 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-27982 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Bim_{EL} (N-17) is recommended for detection of Bim_{EL} of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with Bim_L.

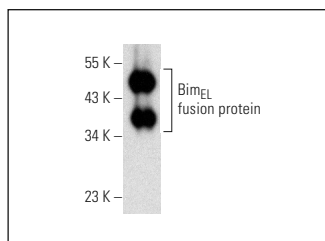
Suitable for use as control antibody for Bim siRNA (h): sc-29802, Bim siRNA (m): sc-29803, Bim shRNA Plasmid (h): sc-29802-SH, Bim shRNA Plasmid (m): sc-29803-SH, Bim shRNA (h) Lentiviral Particles: sc-29802-V and Bim shRNA (m) Lentiviral Particles: sc-29803-V.

Molecular Weight of Bim_{EL}: 24-26 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Bim_{EL} (N-17): sc-27982. Western blot analysis of human recombinant Bim_{EL} fusion protein.

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.



Try **Bim (H-5): sc-374358** or **Bim (Ham 151-149): sc-130511**, our highly recommended monoclonal alternatives to Bim_{EL} (N-17). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Bim (H-5): sc-374358**.