

p-Bim_{EL/L} (Ser 65): sc-101646

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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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.
9. Kuribara, R., et al. 2004. Roles of Bim in apoptosis of normal and Bcr-Abl-expressing hematopoietic progenitors. *Mol. Cell. Biol.* 24: 6172-6183.

CHROMOSOMAL LOCATION

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

SOURCE

p-Bim_{EL} (Ser 65) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 65 of Bim_{EL/L} 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-Bim_{EL/L} (Ser 65) is recommended for detection of Ser 65 phosphorylated Bim_{EL/L} of mouse and rat origin and correspondingly phosphorylated Ser 69 of human origin by immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

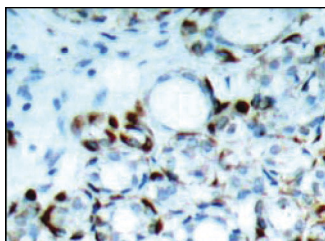
Suitable for use as control antibody for Bim siRNA (h): sc-29802 and Bim siRNA (m): sc-29803.

Molecular Weight of p-Bim_{EL/L}: 16-23 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) 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. 2) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



p-Bim_{EL/L} (Ser 65): sc-101646. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Yu, C.Z., et al. 2009. Neuroprotection against transient focal cerebral ischemia and oxygen-glucose deprivation by interference with GluR6-PSD95 protein interaction. *Neurochem. Res.* 34: 2008-2021.

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 or our catalog for detailed protocols and support products.