

# Bim (M-20): sc-8267

## 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<sub>S</sub> (short), Bim<sub>L</sub> (long) and Bim<sub>EL</sub> (extra long). ERK 1/2 phosphorylates Bim<sub>EL</sub>, resulting in rapid degradation of the isoform via the proteasome pathway. At least three sites for ERK 1/2 phosphorylation exist on Bim<sub>EL</sub>, whereas ERK 1/2 does not effect Bim<sub>S</sub> or Bim<sub>L</sub>, implying a unique role for Bim<sub>EL</sub> in cell survival signaling.

## CHROMOSOMAL LOCATION

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

## SOURCE

Bim (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Bim<sub>EL</sub> of mouse 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-8267 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

Bim (M-20) is recommended for detection of Bim<sub>EL</sub>, Bim<sub>L</sub> and Bim<sub>S</sub> of mouse, rat and, to a lesser extent, 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), immunohistochemistry (including paraffin-embedded sections) (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 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<sub>S</sub>: 19 kDa.

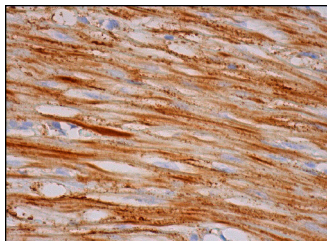
Molecular Weight of Bim<sub>L</sub>: 21 kDa.

Molecular Weight of Bim<sub>EL</sub>: 24 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Bim (M-20): sc-8267. Immunoperoxidase staining of formalin fixed, paraffin-embedded human smooth muscle tissue showing cytoplasmic staining of smooth muscle cells.

## SELECT PRODUCT CITATIONS

- Zong, W.X., et al. 2001. BH3-only proteins that bind pro-survival Bcl-2 family members fail to induce apoptosis in the absence of Bax and Bak. *Genes Dev.* 15: 1481-1486.
- Shibata, M., et al. 2002. Temporal profiles of the subcellular localization of Bim, a BH3-only protein, during middle cerebral artery occlusion in mice. *J. Cereb. Blood Flow Metab.* 22: 810-820.
- Akiyama, T., et al. 2003. Regulation of osteoclast apoptosis by ubiquitylation of proapoptotic BH3-only Bcl-2 family member Bim. *EMBO J.* 22: 6653-6664.
- 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.
- Valenzuela, V., et al. 2012. Activation of the unfolded protein response enhances motor recovery after spinal cord injury. *Cell Death Dis.* 3: e272.



Try **Bim (H-5): sc-374358** or **Bim (Ham 151-149): sc-130511**, our highly recommended monoclonal alternatives to Bim (M-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Bim (H-5): sc-374358**.