



## Bim<sub>EL/L</sub> (M-20): sc-27985

### 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). ERK1/2 phosphorylates Bim<sub>EL</sub>, resulting in rapid degradation of the isoform via the proteasome pathway. At least three sites for ERK1/2 phosphorylation exist on Bim<sub>EL</sub>, whereas ERK1/2 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.

### REFERENCES

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3. Luciano, F., et al. 2003. Phosphorylation of Bim<sub>EL</sub> 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<sub>EL</sub> kinases" that bind to the BH3-only protein Bim<sub>EL</sub> 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 pro-apoptotic 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.
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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 F3-G1.

### SOURCE

Bim<sub>EL/L</sub> (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Bim<sub>EL</sub> of mouse origin.

### STORAGE

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

### 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-27985 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Bim<sub>EL/L</sub> (M-20) is recommended for detection of Bim<sub>EL</sub> and Bim<sub>L</sub> of mouse and rat 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).

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

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.

Positive Controls: mouse lymph node.

### 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.

### 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.