

BI-1 (A-18): sc-12393

BACKGROUND

BI-1 (Bax inhibitor 1), also designated testis enhanced gene transcript (TEGT), is a regulator of cell death pathways controlled by Bcl-2 and Bax. BI-1 is an integral membrane protein containing six membrane-spanning segments and is predominantly localized to intracellular membranes, similar to Bcl-2 family proteins. The human protein contains 237 amino acids. BI-1 can interact with Bcl-2 and Bcl-X_L. When overexpressed in mammalian cells, BI-1 suppresses apoptosis induced by Bax, etoposide, staurosporine and growth factor deprivation. BI-1 antisense induces apoptosis.

REFERENCES

1. Cowling, R.T., et al. 1998. Preliminary characterization of the protein encoded by human testis-enhanced gene transcript (TEGT). *Mol. Membr. Biol.* 15: 177-187.
2. Xu, Q., et al. 1998. Bax inhibitor-1, a mammalian apoptosis suppressor identified by functional screening in yeast. *Mol. Cell* 1: 337-346.
3. Jean, J.C., et al. 1999. The Bax inhibitor-1 gene is differentially regulated in adult testis and developing lung by two alternative TATA-less promoters. *Genomics* 57: 201-208.
4. Grzmil, M., et al. 2003. Bax inhibitor-1 is overexpressed in prostate cancer and its specific down-regulation by RNA interference leads to cell death in human prostate carcinoma cells. *Am. J. Pathol.* 163: 543-552.
5. Chae, H.J., et al. 2004. BI-1 regulates an apoptosis pathway linked to endoplasmic reticulum stress. *Mol. Cell* 15: 355-366.
6. Huckelhoven, R. 2004. Bax inhibitor-1, an ancient cell death suppressor in animals and plants with prokaryotic relatives. *Apoptosis* 9: 299-307.
7. Westphalen, B.C., et al. 2005. BI-1 protects cells from oxygen glucose deprivation by reducing the calcium content of the endoplasmic reticulum. *Cell Death Differ.* 12: 304-306.

CHROMOSOMAL LOCATION

Genetic locus: TMIM6 (human) mapping to 12q13.12; Tmbim6 (mouse) mapping to 15 F1.

SOURCE

BI-1 (A-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BI-1 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-12393 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.

APPLICATIONS

BI-1 (A-18) is recommended for detection of BI-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

BI-1 (A-18) is also recommended for detection of BI-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BI-1 siRNA (h): sc-37298, BI-1 siRNA (m): sc-37299, BI-1 shRNA Plasmid (h): sc-37298-SH, BI-1 shRNA Plasmid (m): sc-37299-SH, BI-1 shRNA (h) Lentiviral Particles: sc-37298-V and BI-1 shRNA (m) Lentiviral Particles: sc-37299-V.

Molecular Weight of BI-1: 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

SELECT PRODUCT CITATIONS

1. Grzmil, M., et al. 2003. Bax inhibitor-1 is overexpressed in prostate cancer and its specific downregulation by RNA interference leads to cell death in human prostate carcinoma cells. *Am. J. Pathol.* 163: 543-552.

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.



Try **BI-1 (20F430): sc-73483**, our highly recommended monoclonal alternative to BI-1 (A-18).