SANTA CRUZ BIOTECHNOLOGY, INC.

Hrk (Q-17): sc-26828

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Members of the Bcl-2 family of proteins interact to regulate programmed cell death, or apoptosis. Various homodimers and heterodimers formed by proteins in this family can either promote or inhibit apoptosis. Bcl-2 blocks cell death following a variety of stimuli and confers a death-sparing effect on certain hematopoietic cell lines following growth factor withdrawal. Additional apoptotic inhibitors in this family include Bcl-x, Bcl-w, Mcl-1, Bag-1 and A1. Pro-apoptotic members of this family include Bax, Bad, Bak, NBK (Bik), BID and Hrk. Hrk (for harakiri), designated DP5 or neuronal death protein in mouse and rat, contains a BH3 domain with high homology to other Bcl-2 family members but lacks the conserved BH1 and BH2 domains. Physical interaction of Hrk with Bcl-2 or Bcl-x_L inhibits the apoptotic activity of Hrk.

REFERENCES

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2. Nunez, G., et al. 1990. Deregulated Bcl-2 gene expression selectively prolongs survival of growth factor-deprived hemopoietic cell lines. J. Immunol. 144: 3602-3610.
3. Oltvai, Z.N., et al. 1993. Bcl-2 heterodimerizes *in vivo* with a conserved homolog, Bax, that accelerates programmed cell death. Cell 74: 609-619.
4. Sato, T., et al. 1994. Interactions among members of the Bcl-2 protein family analyzed with a yeast two-hybrid system. Proc. Natl. Acad. Sci. USA 91: 9238-9242.
5. Oltvai, Z.N., et al. 1994. Checkpoints of dueling dimers foil death wishes. Cell 79: 189-192.
6. Yang, E., et al. 1996. Molecular thanatopsis: a discourse on the Bcl-2 family and cell death. Blood 88: 386-401.
7. Wang, K., et al. 1996. BID: a novel BH3 domain-only death agonist. Genes Dev. 10: 2859-2869.
8. Nagata, S. 1997. Apoptosis by death factor. Cell 88: 355-365.
9. Inohara, N., et al. 1997. Harakiri, a novel regulator of cell death, encodes a protein that activates apoptosis and interacts selectively with survival-promoting proteins Bcl-2 and Bcl-x_L. EMBO J. 16: 1686-1694.

CHROMOSOMAL LOCATION

Genetic locus: Bid3 (mouse) mapping to 5 F.

SOURCE

Hrk (Q-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Hrk 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-26828 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Hrk (Q-17) is recommended for detection of Hrk of mouse and rat 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).

Suitable for use as control antibody for Hrk siRNA (m): sc-37304, Hrk shRNA Plasmid (m): sc-37304-SH and Hrk shRNA (m) Lentiviral Particles: sc-37304-V.

Molecular Weight (predicted) of Hrk: 10 kDa.

Molecular Weight of Hrk: 16 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

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.

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.