

Bok (H-151): sc-11424

BACKGROUND

Members of the Bcl-2 family of proteins interact to regulate apoptosis, a process by which multicellular organisms eliminate superfluous cells. Various homodimers and heterodimers formed by proteins in this family 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. Bok, or Bcl-2 related ovarian killer, is highly expressed in ovary, testis, uterus and mammary glands. Bok induces apoptosis in cells, which is suppressible by anti-apoptotic human Bcl-2 family proteins. Bok targets mitochondria and triggers cytochrome c release through a caspase-independent mechanism. Bok contains the conserved Bcl-2 homology (BH) domains 1, 2 and 3, but lacks the BH4 domain. Bok selectively heterodimerizes with some anti-apoptotic members of the Bcl-2 protein family, including Mcl-1 and Bfl-1, but it does not appear to interact with Bcl-2, Bcl-x_L and Bcl-w.

REFERENCES

- Vaux, D.L., et al. 1988. Bcl-2 promotes the survival of hemopoietic cells and cooperates with c-Myc to immortalize pre-B cells. *Nature* 335: 440-442.
- 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.

CHROMOSOMAL LOCATION

Genetic locus: BOK (human) mapping to 2q37.3; Bok (mouse) mapping to 1 D.

SOURCE

Bok (H-151) is a rabbit polyclonal antibody raised against amino acids 61-212 of Bok 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.

APPLICATIONS

Bok (H-151) is recommended for detection of Bok (Bcl-2-related ovarian killer) 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).

Bok (H-151) is also recommended for detection of Bok (Bcl-2-related ovarian killer) in additional species, including bovine.

Suitable for use as control antibody for Bok siRNA (h): sc-37300, Bok siRNA (m): sc-37301, Bok shRNA Plasmid (h): sc-37300-SH, Bok shRNA Plasmid (m): sc-37301-SH, Bok shRNA (h) Lentiviral Particles: sc-37300-V and Bok shRNA (m) Lentiviral Particles: sc-37301-V.

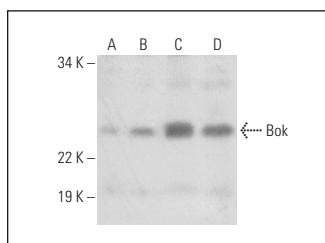
Molecular Weight of Bok: 23 kDa.

Positive Controls: HT-1080 whole cell lysate: sc-364183, Bok (h3): 293T Lysate: sc-369249 or HL-60 whole cell lysate: sc-2209.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 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.

DATA



Bok (H-151): sc-11424. Western blot analysis of Bok expression in non-transfected 293T: sc-117752 (A), human Bok transfected 293T: sc-369249 (B) and HL-60 (C) whole cell lysates and mouse testis tissue extract (D).

SELECT PRODUCT CITATIONS

- Singh, S., et al. 2005. Sulforaphane-induced cell death in human prostate cancer cells is initiated by reactive oxygen species. *J. Biol. Chem.* 280: 19911-19924.
- Gao, S., et al. 2005. Membrane translocation and oligomerization of hBok are triggered in response to apoptotic stimuli and BNIP-3. *Cell. Mol. Life Sci.* 62: 1015-1024.
- Xiao, D., et al. 2006. Phenethyl isothiocyanate-induced apoptosis in PC-3 human prostate cancer cells is mediated by reactive oxygen species-dependent disruption of the mitochondrial membrane potential. *Carcinogenesis* 27: 2223-2234.
- Jääskeläinen, M., et al. 2010. WNT4 is expressed in human fetal and adult ovaries and its signaling contributes to ovarian cell survival. *Mol. Cell. Endocrinol.* 317: 106-111.
- Jääskeläinen, M., et al. 2010. Regulation of cell death in human fetal and adult ovaries—role of Bok and Bcl-X_L. *Mol. Cell. Endocrinol.* 330: 17-24.

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.