SANTA CRUZ BIOTECHNOLOGY, INC.

survivin (A-19): sc-8808

BACKGROUND

The *baculovirus* protein p35 inhibits virally induced apoptosis of invertebrate and mammalian cells and may function to impair the clearing of virally infected cells by the host's immune system. This is accomplished at least in part by its ability to block both TNF- and FAS-mediated apoptosis through the inhibition of the ICE family of serine proteases. Two mammalian homologs of *baculovirus* p35, referred to as inhibitor of apoptosis protein (IAP) 1 and 2, share an amino terminal baculovirus IAP repeat (BIR) motif and a carboxy terminal ring finger. Although the c-IAPs do not directly associate with the TNF receptor (TNF-R), they efficiently block TNF-mediated apoptosis through their interaction with the downstream TNF-R effectors, TRAF1 and TRAF2. Additional IAP family members include ILP (for IAP-like protein) and survivin. ILP inhibits activated caspase-3, leading to the resistance of FAS-mediated apoptosis. Survivin (also designated TIAP) is expressed during the G_2/M phase of the cell cycle and associates with microtublules of the mitotic spindle. Increased caspase-3 activity is detected when a disruption of survivin-microtubule interactions occurs.

CHROMOSOMAL LOCATION

Genetic locus: BIRC5 (human) mapping to 17q25.3; Birc5 (mouse) mapping to 11 E2.

SOURCE

survivin (A-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of survivin 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-8808 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

survivin (A-19) is recommended for detection of survivin 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).

Suitable for use as control antibody for survivin siRNA (h): sc-29499, survivin siRNA (m): sc-29500, survivin shRNA Plasmid (h): sc-29499-SH, survivin shRNA Plasmid (m): sc-29500-SH, survivin shRNA (h) Lentiviral Particles: sc-29499-V and survivin shRNA (m) Lentiviral Particles: sc-29500-V.

Molecular Weight of survivin: 17 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, COLO320 DM cell lysate: sc-2226 or survivin (h): 293T Lysate: sc-129893.

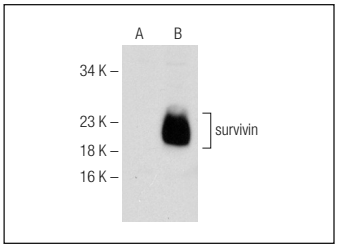
STORAGE

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

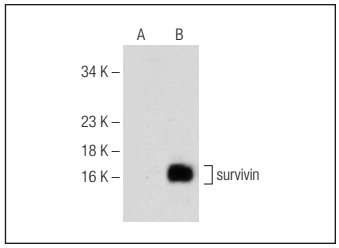
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



survivin (A-19): sc-8808. Western blot analysis of survivin expression in non-transfected: sc-117752 (**A**) and human survivin transfected: sc-129893 (**B**) 293T whole cell lysates.



survivin (A-19): sc-8808. Western blot analysis of survivin expression in non-transfected: sc-117752 (**A**) and mouse survivin transfected: sc-126065 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Song, Z., et al. 2003. Direct interaction between survivin and Smac/DIABLO is essential for the anti-apoptotic activity of survivin during taxol-induced apoptosis. J. Biol. Chem. 278: 23130-23140.
2. Sommer, K.W., et al. 2004. Inhibitor of apoptosis protein (IAP) survivin is upregulated by oncogenic c-H-Ras. Oncogene 22: 4266-4280.
3. Schmidmaier, R., et al. 2004. Treosulfan-induced apoptosis in acute myeloid leukemia cells is accompanied by translocation of protein kinase C δ and enhanced by bryostatin-1. Exp. Hematol. 32: 76-86.
4. Lotz, K. 2004. BRUCE, a giant E2/E3 ubiquitin ligase and inhibitor of apoptosis protein of the *trans*-Golgi network, is required for normal placenta development and mouse survival. Mol. Cell. Biol. 24: 9339-9350.
5. Sommer, K.W., et al. 2007. Oncogenic c-H-ras deregulates survivin expression: an improvement for survival. FEBS Lett. 581: 4921-4926.
6. Scheiman, J., et al. 2010. Multiple functions of the 37/67-kd laminin receptor make it a suitable target for novel cancer gene therapy. Mol. Ther. 18: 63-74.
7. Vergara, D., et al. 2014. Antitumor activity of the dietary diterpene carnosol against a panel of human cancer cell lines. Food Funct. 5: 1261-1269.
8. Guo, F., et al. 2015. Downregulation of matrix metalloproteinase 9 by small interfering RNA inhibits the tumor growth of ovarian epithelial carcinoma *in vitro* and *in vivo*. Mol. Med. Rep. 12: 753-759.