

survivin (m): 293T Lysate: sc-126065

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 G₂/M phase of the cell cycle and associates with microtubules of the mitotic spindle. Increased caspase-3 activity is detected when a disruption of survivin-microtubule interactions occurs.

REFERENCES

- Hay, B.A., et al. 1994. Expression of baculovirus p35 prevents cell death in *Drosophila*. *Development* 120: 2121-2129.
- Beidler, D.R., et al. 1995. The baculovirus p35 protein inhibits FAS- and TNF-induced apoptosis. *J. Biol. Chem.* 270: 16526-16528.
- Bump, N.J., et al. 1995. Inhibition of ICE family proteases by baculovirus antiapoptotic protein p35. *Science* 269: 1885-1888.
- Rothe, M., et al. 1995. The TNF-R2-TRAF signaling complex contains two novel proteins related to baculoviral inhibitor of apoptosis proteins. *Cell* 83: 1243-1252.
- Uren, A.G., et al. 1996. Cloning and expression of apoptosis inhibitory protein homologs that function to inhibit apoptosis and/or bind tumor necrosis factor receptor-associated factors. *Proc. Natl. Acad. Sci. USA* 93: 4974-4978.
- Suzuki, A., et al. 1998. Resistance to FAS-mediated apoptosis: activation of caspase 3 is regulated by cell cycle regulator p21^{WAF1} and IAP gene family ILP. *Oncogene* 17: 931-939.
- Li, F., et al. 1998. Control of apoptosis and mitotic spindle checkpoint by survivin. *Nature* 396: 580-584.
- Shu, M.G., et al. 2007. Enhancing skin flap survival by a cell-permeable wild-type survivin. *Med. Hypotheses* 69: 888-891.
- Ma, J., et al. 2007. Effects of Genistein on the proliferation and expression of survivin in salivary adenoid cystic carcinoma cell line SACC-83. *Hua Xi Kou Qiang Yi Xue Za Zhi* 25: 97-99.

CHROMOSOMAL LOCATION

Genetic locus: Birc5 (mouse) mapping to 11 E2.

RESEARCH USE

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

PRODUCT

survivin (m): 293T Lysate represents a lysate of mouse survivin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

survivin (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive survivin antibodies. Recommended use: 10-20 µl per lane.

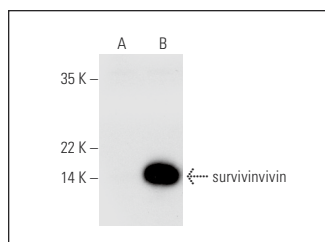
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

survivin (D-8): sc-17779 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse survivin expression in survivin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

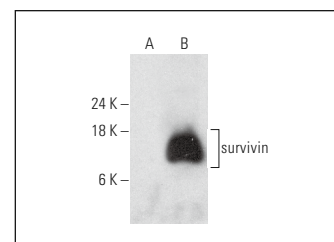
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



survivin (D-8): sc-17779. Western blot analysis of survivin expression in non-transfected: sc-117752 (A) and mouse survivin transfected: sc-126065 (B) 293T whole cell lysates.



survivin (D-8) HRP: sc-17779 HRP. Direct western blot analysis of survivin expression in non-transfected: sc-117752 (A) and mouse survivin transfected: sc-126065 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.