

## survivin (D-8): sc-17779



The Power to Question

## 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<sub>2</sub>/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 tumor necrosis factor-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.

## CHROMOSOMAL LOCATION

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

## SOURCE

survivin (D-8) is a mouse monoclonal antibody raised against amino acids 1-142 of survivin of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

survivin (D-8) is available conjugated to agarose (sc-17779 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-17779 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-17779 PE), fluorescein (sc-17779 FITC), Alexa Fluor® 488 (sc-17779 AF488), Alexa Fluor® 546 (sc-17779 AF546), Alexa Fluor® 594 (sc-17779 AF594) or Alexa Fluor® 647 (sc-17779 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-17779 AF680) or Alexa Fluor® 790 (sc-17779 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

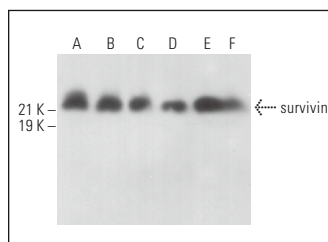
survivin (D-8) is recommended for detection of survivin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

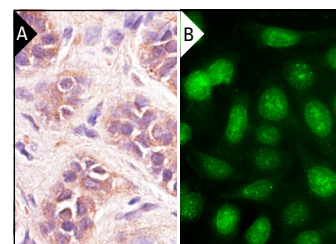
Molecular Weight of survivin: 17 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, SJRH30 cell lysate: sc-2287 or AN3 CA cell lysate: sc-24662.

## DATA



survivin (D-8): sc-17779. Western blot analysis of survivin expression in HL-60 (A), SJRH30 (B), AN3 CA (C), M1 (D), c4 (E) and A-10 (F) whole cell lysates.



survivin (D-8): sc-17779. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor showing cytoplasmic staining (A). Immunofluorescence staining of methanol-fixed SW480 cells showing nuclear localization (B).

## SELECT PRODUCT CITATIONS

- Jia, L., et al. 2003. Role of Smac in human leukaemic cell apoptosis and proliferation. Oncogene 22: 1589-1599.
- Abadía-Molina, F., et al. 2017. Neuronal apoptosis inhibitory protein (NAIP) localizes to the cytokinetic machinery during cell division. Sci. Rep. 7: 39981.
- Fan, L., et al. 2018. Upregulation of miR-185 promotes apoptosis of the human gastric cancer cell line MGC803. Mol. Med. Rep. 17: 3115-3122.
- Chen, H.Y., et al. 2019. Dexmedetomidine enhances hypoxia-induced cancer cell progression. Exp. Ther. Med. 18: 4820-4828.
- Reyes, M., et al. 2020. Nuclear accumulation of β-catenin is associated with endosomal sequestration of the destruction complex and increased activation of Rab5 in oral dysplasia. FASEB J. 34: 4009-4025.

## RESEARCH USE

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