SANTA CRUZ BIOTECHNOLOGY, INC.

DR5 (N-19): sc-7192

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Tumor necrosis factor (TNF) is a pleiotropic cytokine whose function is mediated by two distinct cell surface receptors, designated TNF-R1 and TNF-R2, which are expressed on most cell types. TNF function is primarily mediated through TNF-R1 signaling. Both receptors belong to the growing TNF receptor superfamily which includes FAS antigen and CD40. TNF-R1 contains a cytoplasmic motif, termed the "death domain," that has been found to be necessary for the transduction of the apoptotic signal. The death domain is also found in several other receptors, including FAS, DR2 (or TRUNDD), DR3 (death receptor 3), DR4 and DR5. TRUNDD, DR4 and DR5 are receptors for the apoptosis-inducing cytokine TRAIL. A non-death domain-containing receptor, designated decoy receptor (DcR1 or TRID), also specifically associates with TRAIL and may play a role in cellular resistance to apoptotic stimuli.

REFERENCES

1. Tartaglia, L.A., et al. 1993. A novel domain within the 55 kDa TNF receptor signals cell death. Cell 74: 845-853.
2. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. Cell 76: 959-962.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF10B (human) mapping to 8p21.3.

SOURCE

DR5 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of DR5 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.

Blocking peptide available for competition studies, sc-7192 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DR5 (N-19) is recommended for detection of DR5 of 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), 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 DR5 siRNA (h): sc-40237, DR5 shRNA Plasmid (h): sc-40237-SH and DR5 shRNA (h) Lentiviral Particles: sc-40237-V.

Molecular Weight of DR5: 48 kDa.

Positive Controls: BJAB whole cell lysate: sc-2207 or DR5 (h): 293 Lysate: sc-110563.

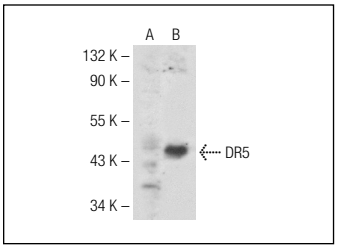
RESEARCH USE

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

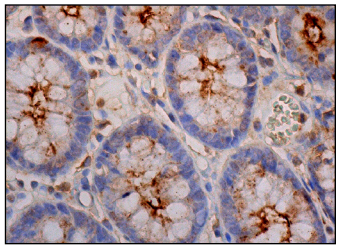
STORAGE

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

DATA



DR5 (N-19): sc-7192. Western blot analysis of DR5 expression in non-transfected: sc-110760 (**A**) and human DR5 transfected: sc-110563 (**B**) 293 whole cell lysates.



DR5 (N-19): sc-7192. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing apical membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Mitsiades, C., et al. 2001. TRAIL/Apo2L ligand selectively induces apoptosis and overcomes drug resistance in multiple myeloma: therapeutic applications. Blood 98: 795-804.
2. Vindrieux, D., et al. 2006. TNF-α-related apoptosis-inducing ligand decoy receptor DcR2 is targeted by androgen action in the rat ventral prostate. J. Cell. Physiol. 206: 709-717.
3. Wilson, T.R., et al. 2009. Procaspase 8 overexpression in non-small-cell lung cancer promotes apoptosis induced by FLIP silencing. Cell Death Differ. 16: 1352-1361.
4. Gajate, C., et al. 2009. Lipid raft connection between extrinsic and intrinsic apoptotic pathways. Biochem. Biophys. Res. Commun. 380: 780-784.
5. Prasad, S., et al. 2010. Garcinol potentiates TRAIL-induced apoptosis through modulation of death receptors and antiapoptotic proteins. Mol. Cancer Ther. 9: 856-868.
6. Kannappan, R., et al. 2010. γ-tocotrienol promotes TRAIL-induced apoptosis through reactive oxygen species/extracellular signal-regulated kinase/p53-mediated upregulation of death receptors. Mol. Cancer Ther. 9: 2196-2207.
7. Kyrönlahti, A., et al. 2010. GATA4 protects granulosa cell tumors from TRAIL-induced apoptosis. Endocr. Relat. Cancer 17: 709-717.
8. Khan, S., et al. 2012. A novel cyano derivative of 11-keto-β-boswellic acid causes apoptotic death by disrupting PI3K/AKT/Hsp-90 cascade, mitochondrial integrity, and other cell survival signaling events in HL-60 cells. Mol. Carcinog. 51: 679-695.