SANTA CRUZ BIOTECHNOLOGY, INC.

DR4 (C-20): sc-6823

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.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF10A (human) mapping to 8p21.3.

SOURCE

DR4 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of DR4 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-6823 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DR4 (C-20) is recommended for detection of DR4 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 DR4 siRNA (h): sc-35218, DR4 shRNA Plasmid (h): sc-35218-SH and DR4 shRNA (h) Lentiviral Particles: sc-35218-V.

Molecular Weight of DR4: 56 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or DR4 (h): 293 Lysate: sc-112977.

STORAGE

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

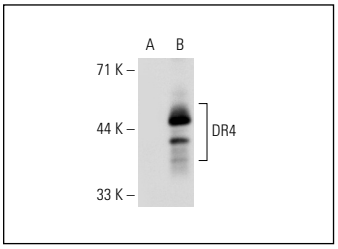
PROTOCOLS

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

RESEARCH USE

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

DATA



DR4 (C-20): sc-6823. Western blot analysis of DR4 expression in non-transfected: sc-110760 (**A**) and human DR4 transfected: sc-112977 (**B**) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

1. Clarke, P., et al. 2000. Reovirus-induced apoptosis is mediated by TRAIL. J. Virol. 74: 8135-8139.
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3. Ouellet, V., et al. 2007. An apoptotic molecular network identified by microarray: on the TRAIL to new insights in epithelial ovarian cancer. Cancer 110: 297-308.
4. Jin, X., et al. 2008. Chemosensitization in non-small cell lung cancer cells by IKK inhibitor occurs via NFκB and mitochondrial cytochrome c cascade. J. Cell. Mol. Med. 13: 4596-4607.
5. Kyrönlahti, A., et al. 2010. GATA4 protects granulosa cell tumors from TRAIL-induced apoptosis. Endocr. Relat. Cancer 17: 709-717.
6. Song, J.J., et al. 2010. c-Cbl-mediated degradation of TRAIL receptors is responsible for the development of the early phase of TRAIL resistance. Cell. Signal. 22: 553-563.
7. Duiker, E.W., et al. 2010. The extrinsic apoptosis pathway and its prognostic impact in ovarian cancer. Gynecol. Oncol. 116: 549-555.
8. González, R., et al. 2012. Targeting hepatoma using nitric oxide donor strategies. Antioxid. Redox Signal. 18:491-506.