SANTA CRUZ BIOTECHNOLOGY, INC.

DcR2 (A-17): sc-26534

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, DR5 and DR6. TRUNDD, DR4 and DR5 are receptors for the apoptosis-inducing cytokine TRAIL. Non-death domain-containing receptors, designated decoy receptor 1 (DcR1) or TRID, DcR2 and DcR3, associate with specific ligands and may play a role in cellular resistance to apoptotic stimuli.

REFERENCES

1. Tartaglia, L.A., Ayers, T.M., Wong, G.H. and Goeddel, D.V. 1993. A novel domain within the 55 kDa TNF receptor signals cell death. Cell 74: 845-853.
2. Smith, C.A., Farrah, T. and Goodwin, R.G. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation and death. Cell 76: 959-962.
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4. Kitson, J., Raven, T., Jiang, Y.-P., Goeddel, D.V., Giles, K.M., Pun, K.T., Grinham, C.J., Brown, R. and Farrow, S.N. 1996. A death-domain-containing receptor that mediates apoptosis. Nature 384: 372-375.
5. Pan, G., O'Rourke, K., Chinnaiyan, A.M., Gentz, R., Ebner, R., Ni, J. and Dixit, V.M. 1997. The receptor for the cytotoxic ligand TRAIL. Science 276: 111-113.
6. Pan, G., Ni, J., Wei, Y.-F., Yu, G.L., Gentz, R. and Dixit, V.M. 1997. An antagonist decoy receptor and a death domain-containing receptor for TRAIL. Science 277: 815-818.
7. Sheridan, J.P., Marsters, S.A., Pitti, R.M., Gurney, A., Skubatch, M., Baldwin, D., Ramakrishnan, L., Gray, C.L., Baker, K., Wood, W.I., Goddard, A.D., Godowski, P. and Ashkenazi, A. 1997. Control of TRAIL-induced apoptosis by a family of signaling and decoy receptors. Science 277: 818-821.
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9. Pan, G., Ni, J. and Dixit, V.M. 1998. TRUNDD, a new member of the TRAIL receptor family that antagonizes TRAIL signalling. FEBS Lett. 424: 41-45.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF10D (human) mapping to 8p21.3, TNFRSF10C (human) mapping to 8q 21.3.

RESEARCH USE

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

SOURCE

DcR2 (A-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of DcR2 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-26534 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DcR2 (A-17) is recommended for detection of DcR2 and to a lesser extent DcR1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Molecular Weight of DcR2: 42 kDa.

Positive Controls: U-937 cell lysate: sc-2239, THP-1 cell lysate: sc-2238 or SW480 cell lysate: sc-2219.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Vertrees, R.A., Das, G.C., Coscio, A.M., Xie, J., Zwischenberger, J.B. and Boor, P.J. 2005. A mechanism of hyperthermia-induced apoptosis in ras-transformed lung cells. Mol. Carcinog. 44: 111-121.

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.