

DR6 (6D360): sc-70992

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 (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., Ayres, 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.
3. Nagata, S. and Golstein P. 1995. The FAS death factor. *Science* 267: 1449-1456.
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., Gentz, R., Ebner, R., Ni, J. and Dixit, V. 1997. The receptor for the cytotoxic ligand TRAIL. *Science* 276: 111-113.
6. Pan, G., Ni, J., Wei, Y.F., Yu, G., 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., Marsters, S., Pitti, R., Gurney, A., Skubatch, M., Baldwin, D., Ramakrishnan, L., Gray, C., Baker, K., Wood, W., Goddard, A., Godowski, P., and Ashkenazi, A. 1997. Control of TRAIL-induced apoptosis by a family of signaling and decoy receptors. *Science* 277: 818-821.
8. Pan, G., Ni, J., Yu, G., Wei, Y.F. and Dixit, V.M. 1998. TRUNDD, a new member of the TRAIL receptor family that antagonizes TRAIL signalling. *FEBS Lett.* 424: 41-45.
9. Yu, K.Y., Kwon, B., Ni, J., Zhai, Y., Ebner, R. and Kwon, B.S. 1999. A newly identified member of tumor necrosis factor receptor superfamily (TR6) suppresses LIGHT-mediated apoptosis. *J. Biol. Chem.* 274: 13733-13736.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF21 (human) mapping to 6p12.3.

SOURCE

DR6 (6D360) is a mouse monoclonal antibody raised against amino acids 42-335 of DR6 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-70992 PE) or fluorescein (sc-70992 FITC) conjugates for flow cytometry, 100 tests.

APPLICATIONS

DR6 (6D360) is recommended for detection of DR6 of human origin by 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) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for DR6 siRNA (h): sc-35220, DR6 shRNA Plasmid (h): sc-35220-SH and DR6 shRNA (h) Lentiviral Particles: sc-35220-V.

Molecular Weight of DR6: 82 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 2) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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