

TNF-R2 (TR75-32): sc-12751

BACKGROUND

Tumor necrosis factor (TNF) is a pleiotropic cytokine whose function is mediated through two distinct cell surface receptors. These receptors, designated TNF-R1 and TNF-R2, are expressed on most cell types. The majority of TNF functions are primarily mediated through TNF-R1, while signaling through TNF-R2 occurs less extensively and is confined to cells of the immune system. Both of these proteins belong to the growing TNF and nerve growth factor (NGF) receptor superfamily, which includes FAS, CD30, CD27 and CD40. The members of this superfamily are type I membrane proteins that share sequence homology confined to the extracellular region. TNF-R1 shares a motif termed the "death domain" with FAS and three structurally unrelated signaling proteins, TRADD, FADD and RIP. This death domain is required for transduction of the apoptotic signal.

REFERENCES

1. Smith, C.A., et al. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. *Cell* 76: 959-962.
2. Cleveland, J.L., et al. 1995. Contenders in FAS-L/TNF death signaling. *Cell* 81: 479-482.
3. Hsu, H., et al. 1995. The TNF receptor 1-associated protein TRADD signals cell death and NF κ B activation. *Cell* 81: 495-504.
4. Chinnaiyan, A.M., et al. 1995. FADD, a novel death domain-containing protein, interacts with the death domain of FAS and initiates apoptosis. *Cell* 81: 505-512.
5. Stanger, B.Z., et al. 1995. RIP: a novel protein containing a death domain that interacts with FAS/Apo-1 (CD95) in yeast and causes cell death. *Cell* 81: 513-523.
6. Hofmann, K., et al. 1995. The death domain motif found in FAS (Apo-1) and TNF receptor is present in proteins involved in apoptosis and axonal guidance. *FEBS Lett.* 371: 321-323.

CHROMOSOMAL LOCATION

Genetic locus: Tnfrsf1b (mouse) mapping to 4 E1.

SOURCE

TNF-R2 (TR75-32) is a Armenian hamster monoclonal antibody recombinant mouse TNF-R2 extracellular domain.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for neutralization, sc-12751 L, 200 μ g/0.1 ml.

In addition, TNF-R2 (TR75-32) is available conjugated to biotin (sc-12751 B), 200 μ g/ml, for WB, IHC(P) and ELISA.

STORAGE

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

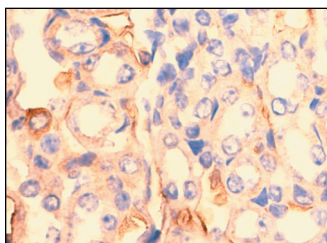
APPLICATIONS

TNF-R2 (TR75-32) is recommended for detection of TNF-R2 of mouse origin by immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for TNF-R2 siRNA (m): sc-36690, TNF-R2 shRNA Plasmid (m): sc-36690-SH and TNF-R2 shRNA (m) Lentiviral Particles: sc-36690-V.

Molecular Weight of TNF-R2: 75 kDa.

DATA



TNF-R2 (TR75-32): sc-12751. Immunoperoxidase staining of formalin-fixed, paraffin-embedded mouse kidney tissue showing membrane localization.

SELECT PRODUCT CITATIONS

1. Monden, Y., et al. 2007. Tumor necrosis factor- α is toxic via receptor 1 and protective via receptor 2 in a murine model of myocardial infarction. *Am. J. Physiol. Heart Circ. Physiol.* 293: H743-H753.
2. Vaitaitis, G.M., et al. 2010. CD40 glycoforms and TNF-receptors 1 and 2 in the formation of CD40 receptor(s) in autoimmunity. *Mol. Immunol.* 47: 2303-2313.

RESEARCH USE

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

PROTOCOLS

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



See **TNF-R2 (TR75-89): sc-12750** for TNF-R2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor[®] 488, 546, 594, 647, 680 and 790.