

TNF-R2 (C-20): sc-1072

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.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF1B (human) mapping to 1p36.22.

SOURCE

TNF-R2 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TNF-R2 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-1072 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TNF-R2 (C-20) is recommended for detection of TNF-R2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TNF-R2 (C-20) is also recommended for detection of TNF-R2 in additional species, including bovine and porcine.

Suitable for use as control antibody for TNF-R2 siRNA (h): sc-36689, TNF-R2 shRNA Plasmid (h): sc-36689-SH and TNF-R2 shRNA (h) Lentiviral Particles: sc-36689-V.

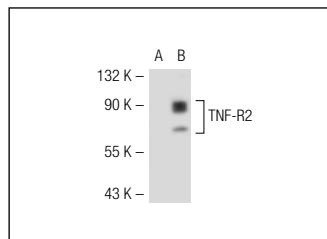
Molecular Weight of TNF-R2: 75 kDa.

Positive Controls: TNF-R2 (h): 293T Lysate: sc-116422, Jurkat whole cell lysate: sc-2204 or SK-BR-3 cell lysate: sc-2218.

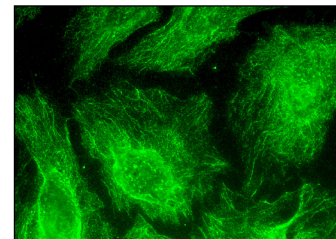
STORAGE

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

DATA



TNF-R2 (C-20): sc-1072. Western blot analysis of TNF-R2 expression in non-transfected: sc-117752 (A) and human TNF-R2 transfected: sc-116422 (B) 293T whole cell lysates.



TNF-R2 (C-20): sc-1072. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Wang, Y., et al. 2000. Stat1 as a component of tumor necrosis factor α receptor 1-TRADD signaling complex to inhibit NF κ B activation. *Mol. Cell Biol.* 20: 4505-4512.
2. Sheikh, S., et al. 2003. Exposure to fluid shear stress modulates the ability of endothelial cells to recruit neutrophils in response to tumor necrosis factor α : a basis for local variations in vascular sensitivity to inflammation. *Blood* 102: 2828-2834.
3. Liu, J., et al. 2004. cAMP-dependent protein kinase activation inhibits proliferation and enhances apoptotic effect of tumor necrosis factor α in NCI-H295R adrenocortical cells. *J. Mol. Endocrinol.* 33: 511-522.
4. Sedger, L., et al. 2006. Poxvirus tumor necrosis factor receptor (TNFR)-like T2 proteins contain a conserved preligand assembly domain that inhibits cellular TNFR1-induced cell death. *J. Virol.* 80: 9300-9309.
5. Zhang, X.C., et al. 2011. Tumor necrosis factor- α induces sensitization of meningeal nociceptors mediated via local COX and p38 MAP kinase actions. *Pain* 152: 140-149.

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.



Try **TNF-R2 (D-2): sc-8041** or **TNF-R2 (F-3): sc-393614**, our highly recommended monoclonal alternatives to TNF-R2 (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **TNF-R2 (D-2): sc-8041**.