

TNF-R1 (H-271): sc-7895

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 coined 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.

CHROMOSOMAL LOCATION

Genetic locus: TNFRSF1A (human) mapping to 12p13.31; Tnfrsf1a (mouse) mapping to 6 F3.

SOURCE

TNF-R1 (H-271) is a rabbit polyclonal antibody raised against amino acids 30-301 of TNF-R1 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.

APPLICATIONS

TNF-R1 (H-271) is recommended for detection of TNF-R1 of mouse, rat and 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 TNF-R1 siRNA (h): sc-29507, TNF-R1 siRNA (m): sc-36688, TNF-R1 shRNA Plasmid (h): sc-29507-SH, TNF-R1 shRNA Plasmid (m): sc-36688-SH, TNF-R1 shRNA (h) Lentiviral Particles: sc-29507-V and TNF-R1 shRNA (m) Lentiviral Particles: sc-36688-V.

Molecular Weight of TNF-R1: 55 kDa.

Positive Controls: TNF-R1 (m): 293T Lysate: sc-124202, MCF7 whole cell lysate: sc-2206 or HeLa whole cell lysate: sc-2200.

STORAGE

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

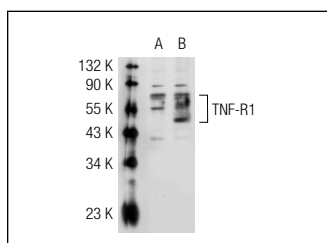
PROTOCOLS

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

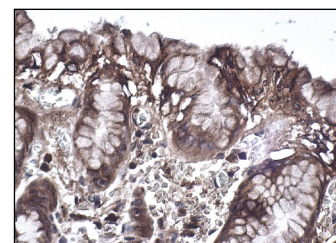
RESEARCH USE

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

DATA



TNF-R1 (H-271): sc-7895. Western blot analysis of TNF-R1 expression in non-transfected: sc-117752 (A) and mouse TNF-R1 transfected: sc-124202 (B) 293T whole cell lysates.



TNF-R1 (H-271): sc-7895. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Segui, B., et al. 1999. CD40 signals apoptosis through FAN-regulated activation of the sphingomyelin-ceramide pathway. *J. Biol. Chem.* 274: 37251-37258.
- Flynn, P.G., et al. 2010. Non-muscle myosin IIB helps mediate TNF cell death signaling independent of actomyosin contractility (AMC). *J. Cell. Biochem.* 110: 1365-1375.
- Thoh, M., et al. 2010. Azadirachtin interacts with the tumor necrosis factor (TNF) binding domain of its receptors and inhibits TNF-induced biological responses. *J. Biol. Chem.* 285: 5888-5895.
- Zhang, L., et al. 2010. Aging-related atherosclerosis is exacerbated by arterial expression of tumor necrosis factor receptor-1: evidence from mouse models and human association studies. *Hum. Mol. Genet.* 19: 2754-2766.
- Su, Z., et al. 2011. Reactive astrocytes inhibit the survival and differentiation of oligodendrocyte precursor cells by secreted TNF- α . *J. Neurotrauma* 28: 1089-1100.
- Guan, Y.J., et al. 2011. Phospho-SXXE/D motif mediated TNF receptor 1-TRADD death domain complex formation for T cell activation and migration. *J. Immunol.* 187: 1289-1297.
- Lam, S.Y., et al. 2012. Chronic intermittent hypoxia induces local inflammation of the rat carotid body via functional upregulation of proinflammatory cytokine pathways. *Histochem. Cell Biol.* 137: 303-317.
- González, R., et al. 2012. Targeting hepatoma using nitric oxide donor strategies. *Antioxid. Redox Signal.* 18: 491-506.



Try **TNF-R1 (H-5): sc-8436** or **TNF-R1 (E-11): sc-374186**, our highly recommended monoclonal alternatives to TNF-R1 (H-271). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **TNF-R1 (H-5): sc-8436**.