

TNF-R1 (G-20): sc-1069

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 (1,3-8). 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 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TNF-R1 of mouse 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-1069 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TNF-R1 (G-20) is recommended for detection of TNF-R1 of mouse, rat and, to a lesser extent, 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).

TNF-R1 (G-20) is also recommended for detection of TNF-R1 in additional species, including equine.

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.

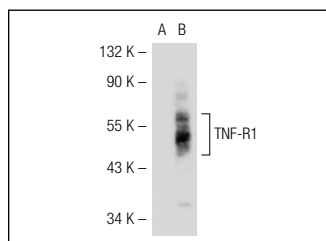
STORAGE

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

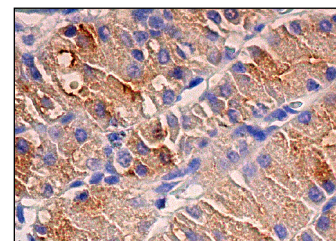
RESEARCH USE

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

DATA



TNF-R1 (G-20): sc-1069. 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 (G-20): sc-1069. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Rosenfeld, M., et al. 1999. Prevention of hepatic apoptosis and embryonic lethality in RelA/TNFR-1 double knockout mice. *Am. J. Pathol.* 155: 997-1007.
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- Brzezinska-Blaszczyk, E., et al. 2007. Tumor necrosis factor (TNF) is a potent rat mast cell chemoattractant. *J. Interferon Cytokine Res.* 27: 911-999.
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- Rowe, A., et al. 2008. Phorbol ester enhances KAI1 transcription by recruiting Tip60/Pontin complexes. *Neoplasia* 10: 1421-1432.
- Bartsch, J.W., et al. 2010. Tumor necrosis factor- α (TNF- α) regulates shedding of TNF- α receptor 1 by the metalloprotease-disintegrin ADAM8: evidence for a protease-regulated feedback loop in neuroprotection. *J. Neurosci.* 30: 12210-12218.
- Or, Y.Y., et al. 2010. Identification of a novel 12p13.3 amplicon in nasopharyngeal carcinoma. *J. Pathol.* 220: 97-107.
- Chentouf, M., et al. 2011. Excessive food intake, obesity and inflammation process in Zucker fa/fa rat pancreatic islets. *PLoS ONE* 6: e22954.

MONOS
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Try **TNF-R1 (H-5): sc-8436** or **TNF-R1 (E-11): sc-374186**, our highly recommended monoclonal alternatives to TNF-R1 (G-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **TNF-R1 (H-5): sc-8436**.