

# TNF-R1 (E-20): sc-1070

## 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* (mouse) mapping to 6 F3.

## SOURCE

TNF-R1 (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-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-1070 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TNF-R1 (E-20) is recommended for detection of TNF-R1 of mouse and rat 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).

Suitable for use as control antibody for TNF-R1 siRNA (m): sc-36688, TNF-R1 shRNA Plasmid (m): sc-36688-SH 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.

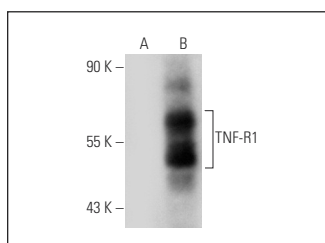
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

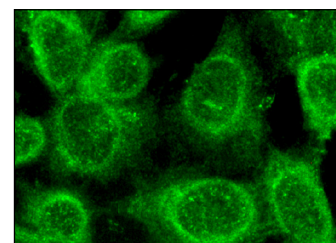
## RESEARCH USE

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

## DATA



TNF-R1 (E-20): sc-1070. 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 (E-20): sc-1070. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Skoff, A.M., et al. 1998. TNF $\alpha$  and TGF $\beta$  act synergistically to kill Schwann cells. *J. Neurosci. Res.* 53: 747-756.
- 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.
- Kumar, A., et al. 2011. A novel parthenin analog exhibits anti-cancer activity: activation of apoptotic signaling events through robust NO formation in human leukemia HL-60 cells. *Chem. Biol. Interact.* 193: 204-215.
- Yang, Y., et al. 2012. TNF- $\alpha$  mediates macrophage-induced bystander effects through Netrin-1. *Cancer Res.* 72: 5219-5229.
- Hu, W.S., et al. 2013. Genistein suppresses the isoproterenol-treated H9c2 cardiomyoblast cell apoptosis associated with P-38, Erk1/2, JNK, and NF $\kappa$ B signaling protein activation. *Am. J. Chin. Med.* 41: 1125-1136.
- Lin, C.C., et al. 2013. The neuroprotective effect of batch-2, an aqueous extract from cat's claw (*Uncaria tomentosa*) on 6-OHDA-induced SH-SY5Y cell damage. *J. Funct. Food* 5: 460-465.
- Huang, W., et al. 2014. HSV-mediated p55TNFSR reduces neuropathic pain induced by HIV gp120 in rats through CXCR4 activity. *Gene Ther.* 21: 328-336.
- Fazzi, F., et al. 2014. TNFR1/phox interaction and TNFR1 mitochondrial translocation Thwart silica-induced pulmonary fibrosis. *J. Immunol.* 192: 3837-3846.



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