

TNF α (L-19): sc-1351

BACKGROUND

Tumor necrosis factor β (TNF β), also known as lymphotoxin, is a pleiotropic cytokine. TNF α , also known as cachectin, is a smaller cytokine that binds to the same receptors producing a vast array of effects similar to those of TNF β . TNF β and TNF α share 30% amino acid homology and have similar biological activities. TNF β is produced by activated lymphocytes, including CD4⁺ T helper cell type 1 lymphocytes, CD8⁺ lymphocytes and certain B lymphoblastoid cell lines. TNF α is produced by several different cell types, which include lymphocytes, neutrophils and macrophages. TNF α and TNF β can modulate many immune and inflammatory functions, while having the ability to inhibit tumor growth. Target tumor cells must express TNF receptors 1 and 2 to be killed, with the p55 receptor mediating the cytotoxic response.

CHROMOSOMAL LOCATION

Genetic locus: TNF (human) mapping to 6p21.33; Tnf (mouse) mapping to 17 B1.

SOURCE

TNF α (L-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TNF α of mouse origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1351 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TNF α (L-19) is recommended for detection of TNF α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TNF α (L-19) is also recommended for detection of TNF α in additional species, including porcine.

Suitable for use as control antibody for TNF α siRNA (h): sc-37216, TNF α siRNA (m): sc-37217, TNF α shRNA Plasmid (h): sc-37216-SH, TNF α shRNA Plasmid (m): sc-37217-SH, TNF α shRNA (h) Lentiviral Particles: sc-37216-V and TNF α shRNA (m) Lentiviral Particles: sc-37217-V.

Molecular Weight of transmembrane TNF α : 26 kDa.

Molecular Weight of soluble TNF α : 17 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, U-937 whole cell lysate: sc-2239 or K-562 whole cell lysate: sc-2203.

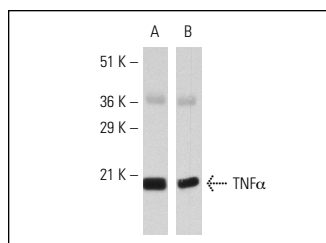
STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

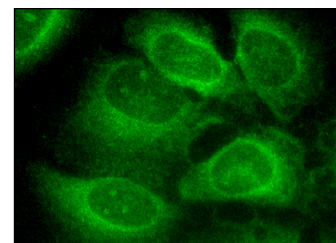
RESEARCH USE

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

DATA



TNF α (L-19): sc-1351. Western blot analysis of human recombinant TNF α (A) and mouse recombinant TNF α (B).



TNF α (L-19): sc-1351. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Napoli, C., et al. 2000. Protease-activated receptor-2 modulates myocardial ischemia-reperfusion injury in the rat heart. *Proc. Natl. Acad. Sci. USA* 97: 3678-3683.
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- Elcioglu, H.K., et al. 2011. A study comparing the effects of rosiglitazone and/or Insulin treatments on streptozotocin induced diabetic (type I diabetes) rat aorta and cavernous tissues. *Eur. J. Pharmacol.* 660: 476-484.
- Mishra, A., et al. 2011. Downregulation of matrix metalloproteinase-9 by melatonin during prevention of alcohol-induced liver injury in mice. *Biochimie* 93: 854-866.
- Meng, X.M., et al. 2011. Disruption of Smad4 impairs TGF- β /Smad3 and Smad7 transcriptional regulation during renal inflammation and fibrosis *in vivo* and *in vitro*. *Kidney Int.* 81: 266-279.
- Liu, F., et al. 2011. C-reactive protein promotes diabetic kidney disease in a mouse model of type 1 diabetes. *Diabetologia* 54: 2713-2723.
- Li, Z.I., et al. 2011. C-reactive protein promotes acute renal inflammation and fibrosis in unilateral ureteral obstructive nephropathy in mice. *Lab. Invest.* 91: 837-851.
- Stone, K.P., et al. 2011. NF κ B is an unexpected major mediator of interleukin-15 signaling in cerebral endothelia. *Cell. Physiol. Biochem.* 28: 115-124.



Try **TNF α (C-4): sc-133192** or **TNF α (TN3-19.12): sc-12744**, our highly recommended monoclonal alternatives to TNF α (L-19). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **TNF α (C-4): sc-133192**.