**BACKGROUND**

Tumor necrosis factor α (TNFα), also known as lymphotixin, is a pleiotropic cytokine. TNFα, also known as cachectin, is a smaller cytokine that binds to the same receptors producing a vast array of effects similar to those of TNFβ. TNFβ and TNFα share 30% amino acid homology and have similar biological activities. TNFβ is produced by activated lymphocytes, including CD4+ T helper cell type 1 lymphocytes, CD8+ lymphocytes and certain B lymphoblastoid cell lines. TNFα is produced by several different cell types, which include lymphocytes, neutrophils and macrophages. TNFα and TNFβ 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 17B1.

**SOURCE**

TNFα (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TNFα of human origin.

**PRODUCT**

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

Blocking peptide available for competition studies, sc-1350 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**APPLICATIONS**

TNFα (N-19) is recommended for detection of TNFα 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).

TNFα (N-19) is also recommended for detection of TNFα in additional species, including equine, canine and feline.

Suitable for use as control antibody for TNFα siRNA (h): sc-37216, TNFα siRNA (m): sc-37217, TNFα shRNA Plasmid (h): sc-37212-SH, TNFα shRNA Plasmid (m): sc-37212-SH, TNFα shRNA (h) Lentiviral Particles: sc-37216-V and TNFα shRNA (m) Lentiviral Particles: sc-37217-V.

Molecular Weight of transmembrane TNFα: 26 kDa.

Molecular Weight of soluble TNFα: 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°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**

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

**SELECT PRODUCT CITATIONS**


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