**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 (mouse) mapping to 17 B1.

**SOURCE**

TNFα (TN3-19.12) is an Armenian hamster monoclonal antibody raised against purified recombinant mouse TNFα.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for neutralization, sc-12744 L, 200 µg/0.1 ml.

TNFα (TN3-19.12) is available conjugated to agarose (sc-12744 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-12744 HRP), 200 µg/ml, for WB, IHCP (sc-12744 FITC), Alexa Fluor® 488 (sc-12744 AF488), Alexa Fluor® 546 (sc-12744 AF546), Alexa Fluor® 594 (sc-12744 AF594) or Alexa Fluor® 647 (sc-12744 AF647), 200 µg/ml, for WB (RGB), IF, IHCP and FCM; and to either Alexa Fluor® 680 (sc-12744 AF680) or Alexa Fluor® 790 (sc-12744 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

TNFα (TN3-19.12) is recommended for detection of TNFα of mouse, rat and rabbit 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for TNFα siRNA (m); sc-37217, TNFα shRNA Plasmid (m); sc-37217-SH 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: THP-1 cell lysate: sc-2238.

**RESEARCH USE**

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

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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

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