

# TNF $\alpha$ (TN3-19.12): sc-12744



The Power to Question

## BACKGROUND

Tumor necrosis factor  $\beta$  (TNF $\beta$ ), also known as lymphotoxin, is a pleiotropic cytokine. TNF $\alpha$ , 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 $\beta$ . TNF $\beta$  and TNF $\alpha$  share 30% amino acid homology and have similar biological activities. TNF $\beta$  is produced by activated lymphocytes, including CD4<sup>+</sup> T helper cell type 1 lymphocytes, CD8<sup>+</sup> lymphocytes and certain B lymphoblastoid cell lines. TNF $\alpha$  is produced by several different cell types, which include lymphocytes, neutrophils and macrophages. TNF $\alpha$  and TNF $\beta$  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

TNF $\alpha$  (TN3-19.12) is a Armenian hamster monoclonal antibody raised against purified recombinant mouse TNF $\alpha$ .

## PRODUCT

Each vial contains 200  $\mu$ g 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  $\mu$ g/0.1 ml.

TNF $\alpha$  (TN3-19.12) is available conjugated to agarose (sc-12744 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-12744 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-12744 PE), fluorescein (sc-12744 FITC), Alexa Fluor<sup>®</sup> 488 (sc-12744 AF488), Alexa Fluor<sup>®</sup> 546 (sc-12744 AF546), Alexa Fluor<sup>®</sup> 594 (sc-12744 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-12744 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-12744 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-12744 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

TNF $\alpha$  (TN3-19.12) is recommended for detection of TNF $\alpha$  of mouse, rat and rabbit origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 TNF $\alpha$  siRNA (m): sc-37217, TNF $\alpha$  shRNA Plasmid (m): sc-37217-SH and TNF $\alpha$  shRNA (m) Lentiviral Particles: sc-37217-V.

Molecular Weight of transmembrane TNF $\alpha$ : 26 kDa.

Molecular Weight of soluble TNF $\alpha$ : 17 kDa.

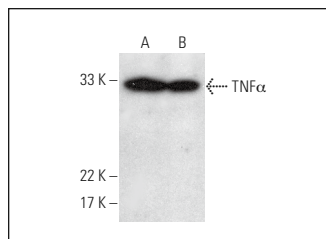
## STORAGE

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

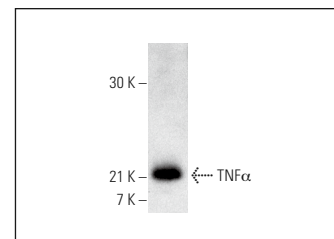
## RESEARCH USE

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

## DATA



TNF $\alpha$  (TN3-19.12) HRP: sc-12744 HRP. Direct western blot analysis of TNF $\alpha$  expression in THP-1 (A) and THP-1 + PMA (B) whole cell lysates.



TNF $\alpha$  (TN3-19.12): sc-12744. Western blot analysis of mouse recombinant TNF $\alpha$ .

## SELECT PRODUCT CITATIONS

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## PROTOCOLS

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