# TNFα (C-4): sc-133192

## BACKGROUND

Tumor necrosis factor β (TNFβ), also known as lymphotoxin, 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.

## SOURCE

TNFα (C-4) is a mouse monoclonal antibody raised against amino acids 77-233 of TNFα of human origin.

## PRODUCT

Each vial contains 200 µg IgG₂a in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TNFα (C-4) is available conjugated to agarose (sc-133192 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133192 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycocerythrin (sc-133192 PE), fluorescein (sc-133192 FITC), Alexa Fluor® 488 (sc-133192 AF488), Alexa Fluor® 546 (sc-133192 AF546), Alexa Fluor® 594 (sc-133192 AF594) or Alexa Fluor® 647 (sc-133192 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133192 AF680) or Alexa Fluor® 790 (sc-133192 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

TNFα (C-4) is recommended for detection of TNFα of human origin by Western Blotting (starting dilution 1:100, 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 TNFα siRNA (h): sc-37216, TNFα shRNA Plasmid (h): sc-37216-SH and TNFα shRNA (h) Lentiviral Particles: sc-37216-V.

Molecular Weight of transmembrane TNFα: 26 kDa.

Molecular Weight of soluble TNFα: 17 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## STORAGE

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

## SELECT PRODUCT CITATIONS


## RESEARCH USE

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