

TNF α (C-4): sc-133192

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.

SOURCE

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

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TNF α (C-4) is available conjugated to agarose (sc-133192 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133192 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (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 μ g/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 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

TNF α (C-4) is recommended for detection of TNF α of human origin by Western Blotting (starting dilution 1:100, 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).

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

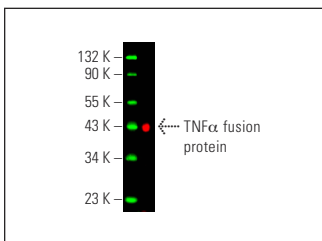
PROTOCOLS

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

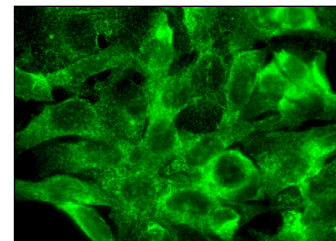
STORAGE

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

DATA



TNF α (C-4) Alexa Fluor[®] 790: sc-133192 AF790. Direct near-infrared western blot analysis of human recombinant TNF α fusion protein. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Cruz Marker[™] Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor[®] 680: sc-516730.



TNF α (C-4): sc-133192. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic and membrane localization.

SELECT PRODUCT CITATIONS

1. Impellizzeri, D., et al. 2012. Effect of fasudil, a selective inhibitor of Rho kinase activity, in the secondary injury associated with the experimental model of spinal cord trauma. *J. Pharmacol. Exp. Ther.* 343: 21-33.
2. Kamysz, E., et al. 2016. Anti-inflammatory effect of novel analogs of natural enkephalinase inhibitors in a mouse model of experimental colitis. *Future Med. Chem.* 8: 2231-2243.
3. Altonsy, M.O., et al. 2017. Long-acting β_2 -agonists promote glucocorticoid-mediated repression of NF κ B by enhancing expression of the feedback regulator TNFAIP3. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 312: L358-L370.
4. Liu, X., et al. 2018. β 4GalT1 mediates PPAR γ N-glycosylation to attenuate microglia inflammatory activation. *Inflammation* 41: 1424-1436.
5. Salaga, M., et al. 2019. Systemic administration of serotonin exacerbates abdominal pain and colitis via interaction with the endocannabinoid system. *Biochem. Pharmacol.* 161: 37-51.
6. Álvarez-Cilleros, D., et al. 2020. Cocoa diet modulates gut microbiota composition and improves intestinal health in Zucker diabetic rats. *Food Res. Int.* 132: 109058.
7. Platania, C.B.M., et al. 2020. Novel indole derivatives targeting HuR-mRNA complex to counteract high glucose damage in retinal endothelial cells. *Biochem. Pharmacol.* 175: 113908.
8. Wang, X., et al. 2020. Glimepiride and glibenclamide have comparable efficacy in treating acute ischemic stroke in mice. *Neuropharmacology* 162: 107845.
9. Zhao, Y., et al. 2020. Cortistatin protects against intervertebral disc degeneration through targeting mitochondrial ROS-dependent NLRP3 inflammatory activation. *Theranostics* 10: 7015-7033.

RESEARCH USE

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