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Datasheet for 109-401-306

TNF alpha Antibody

Overview

Description:	Anti-Human TNF alpha (RABBIT) Antibody - 109-401-306
Item No.:	109-401-306
Size:	1 mL
Applications:	IF, IHC, WB
Reactivity:	Human, Primate
Host Species:	Rabbit

Product Details

Background:	Anti TNF alpha Antibody recognizes TNF alpha (TNF, cachexin, cachectin, tumor necrosis factor-alpha or TNF-α) a cytokine involved in systemic inflammation. TNF alpha is a member of a group of cytokines that stimulate the acute phase reaction. It is produced chiefly by activated macrophages, although it can be produced by other cell types as well. The primary role of TNF alpha is in the regulation of immune cells. TNF is an endogenous pyrogen that is able to induce fever, apoptotic cell death, sepsis (through IL-1 & IL-6 production), cachexia, inflammation, and to inhibit tumorigenesis and viral replication. Dysregulation of TNF production has been implicated in a variety of human diseases, including Alzheimer's disease, cancer, major depression, and inflammatory bowel disease (IBD).
Synonyms:	APC1 antibody, Cachectin antibody, DIF antibody, Differentiation inducing factor antibody, Macrophage cytotoxic factor antibody, MCF antibody, Necrosin antibody, Tumour Necrosis Factor Alpha antibody, rabbit anti-Tumor Necrosis Factor Alpha Antibody, rabbit anti-TNF Alpha Antibody, Tumor necrosis factor, TNF-alpha, Tumor necrosis factor ligand superfamily member 2, TNF-a, Tumor necrosis factor membrane form, N-terminal fragment, NTF, Intracellular domain 1, ICD1, Intracellular domain 2, ICD2, C-domain 1, C-domain 2, Tumor necrosis factor, soluble form, TNF, TNFA, TNFSF2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	Antiserum

Target Details

Gene Name:	TNF

Reactivity:	Human, Primate
Immunogen Type:	Recombinant Protein
Immunogen:	The whole rabbit serum was prepared by repeated immunizations with recombinant human TNFa produced in E.coli.
Purity/Specificity:	This antiserum has been heated to 56°C for 30 minutes. The antiserum is directed against mature 17,000 MW human TNFa and is useful in determining its presence in various assays. In general, this antibody also detects primate TNFa in the same formats using similar dilutions. The antibody does not recognize human TNFb (lymphotoxin). This antiserum will recognize the cell-bound precursor of TNFa as a 26,000 protein in immunoblots, particularly in denatured samples. This antibody is also useful for neutralization of human and primate TNFa activity in bioassays. It does not neutralize the biological activity of lymphotoxin. For neutralization, it is recommended to incubate the sample with a 1:200 dilution of the antibody for at least 4 hours before being tested. A control of similarly diluted normal rabbit IgG is recommended.
Relevant Links:	• NCBI - P01375.1 • UniProtKB - P01375 • GeneID - 7124

Application Details

Tested Applications:	IF, IHC, WB
Application Note:	Anti-Human TNFα has been tested for use in immunohistochemistry, immunofluorescence, and immunoblotting. It recognizes the 17,000 MW TNFα. Reactivity in other immunoassays is unknown.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1,000 - 1:5,000
IF:	1:100
IHC:	1:100 - 1:500
Neutralization:	1:200
WB:	1:500 - 1:2,000

Formulation

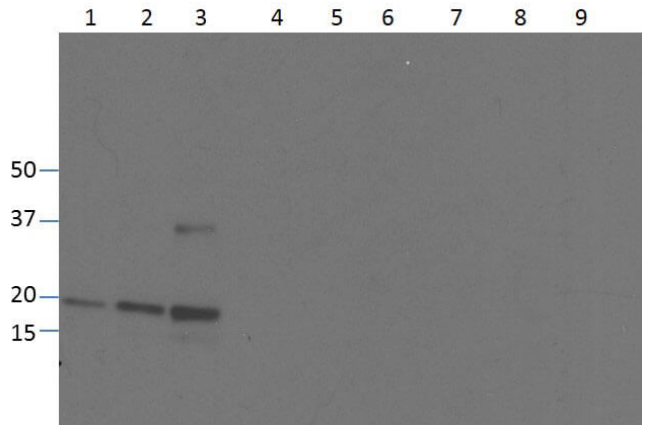
Physical State:	Liquid (sterile filtered)
Concentration:	75 mg/mL by Refractometry

Buffer:	None
Stabilizer:	None

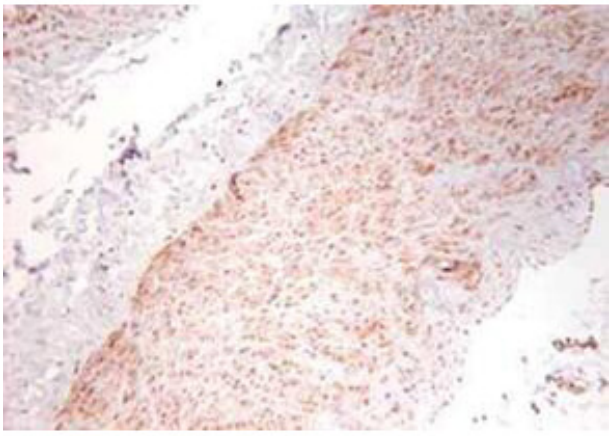
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

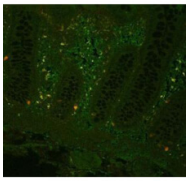
Images



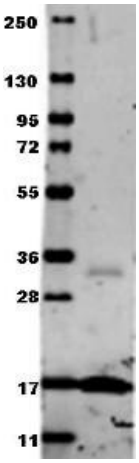
Western Blot
Western blot of Anti-Human TNF-a (RABBIT) Antibody. Lane 1: 250ng human recombinant TNF. Lane 2: 500ng human recombinant TNF. Lane 3: 1000ng human recombinant TNF. Membrane blocked in Blotto (p/n B501-0500) for 30 min RT. Primary antibody: Rb-a-TNF alpha added at 1:1000 in overnight at 4°C, Gt-a-Rb HRP (p/n 611-103-122) added at 1:20,000 in 5% Blotto for 30 min RT. (5 second exposure)



Immunohistochemistry
Immunohistochemistry using Rockland's polyclonal TNFa antibody showing staining of formalin/PFA-fixed paraffin-embedded sections of human artery tissue sections. Sections were fixed in formaldehyde and subjected to heat mediated antigen retrieval in citrate buffer (pH 6.0). Slides were blocked for ten minutes with 1.5% serum. Primary antibody was diluted 1:100 and incubated with samples for 24 hours at 4°C. HRP-conjugated goat anti-rabbit antibody was used as the secondary antibody.



Immunohistochemistry
Fluorescent immunohistochemistry showing staining of human colon by Rockland's anti-TNF alpha (formalin/PFA-fixed paraffin-embedded sections). Samples were formaldehyde-fixed, then blocked in 10% serum for 2 hours at 20°C. The primary antibody was diluted 1:100 and incubated with the sample for 2 hours at 20°C. Alexa Fluor® 680 goat polyclonal secondary antibody was used diluted 1:5000.



Western Blot
Western blot using Rockland's Anti-Human TNF-a (RABBIT) Antibody. Membrane blocked in 1% BSA-TBS-T 30 min RT, Rb-a-TNF alpha added at 1:1000 in 1% BSA-TBS-T o/n 4°C, DyLight 649 Gt-a-Rb (p/n 611-143-122) added at 1:20,000 in (p/n MB-070) 30 min RT.

References

- de la Maza MP, Olivares D, Hirsch S, et al. Weight increase and overweight are associated with DNA oxidative damage in skeletal muscle. *Clin Nutr.* (2006)

Disclaimer

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