

Datasheet for 109-401-306S**TNF alpha Antibody****Overview**

Description:	Anti-Human TNF alpha (RABBIT) Antibody - 109-401-306S
Item No.:	109-401-306S
Size:	25 µL
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
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Reactivity:	Human, Primate
Immunogen Type:	Recombinant Protein
Immunogen:	The whole rabbit serum was prepared by repeated immunizations with recombinant human TNF α 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 TNF α and is useful in determining its presence in various assays. In general, this antibody also detects primate TNF α in the same formats using similar dilutions. The antibody does not recognize human TNF β (lymphotoxin). This antiserum will recognize the cell-bound precursor of TNF α as a 26,000 protein in immunoblots, particularly in denatured samples. This antibody is also useful for neutralization of human and primate TNF α 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 TNF α has been tested for use in immunohistochemistry, immunofluorescence, and immunoblotting. It recognizes the 17,000 MW TNF α . 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
WB:	1:500 - 1:2,000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	75 mg/mL by Refractometry
Buffer:	None

Stabilizer: None

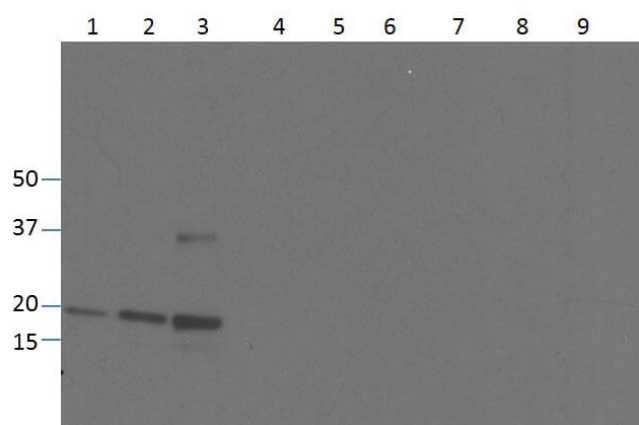
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.

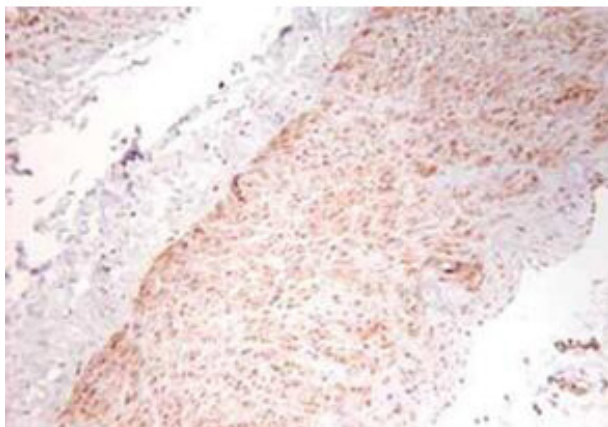
Expiration: Expiration date is one (1) year from date of receipt.

Images



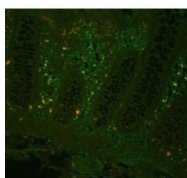
Western Blot

Western blot of Anti-Human TNF- α (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- α -TNF α added at 1:1000 in overnight at 4°C, Gt- α -Rb HRP (p/n 611-103-122) added at 1:20,000 in 5% Blotto for 30 min RT. (5 second exposure)



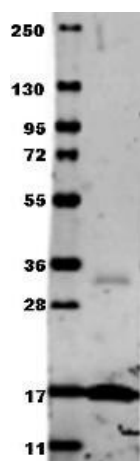
Immunohistochemistry

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

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.