

Datasheet for 209-401-306S**TNF alpha Antibody****Overview**

Description:	Anti-Human TNF- α (RABBIT) Antibody - 209-401-306S
Item No.:	209-401-306S
Size:	25 μ L
Applications:	IF, IHC, WB
Reactivity:	Human
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:	IgG

Target Details

Gene Name:	TNF
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Reactivity:	Human
Immunogen Type:	Recombinant Protein
Immunogen:	The whole rabbit serum used to produce this IgG fraction antibody was prepared by repeated immunizations with recombinant human TNF α .
Purity/Specificity:	This antibody is primarily 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 IgG fraction antibody 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:	GeneID - 7124 NCBI - P01375.1 UniProtKB - P01375

Application Details

Tested Applications:	IF, IHC, WB
Application Note:	This IgG fraction antibody of anti-Human TNF α has been tested for use in neutralizations, ELISA, immunohistochemistry 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:	User Optimized
IHC:	1:100 - 1:500
WB:	1:500 - 1:2,000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative: None

Stabilizer: None

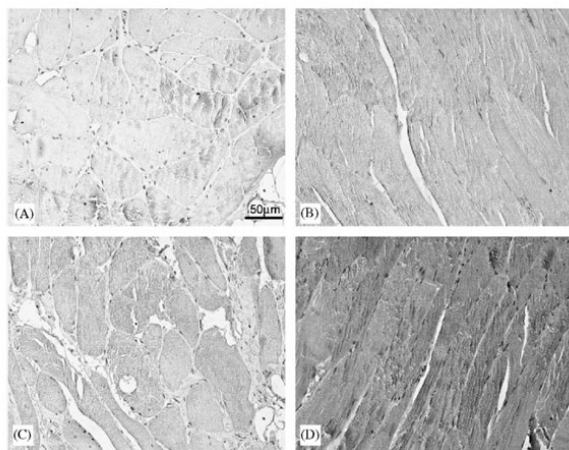
Shipping & Handling

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.

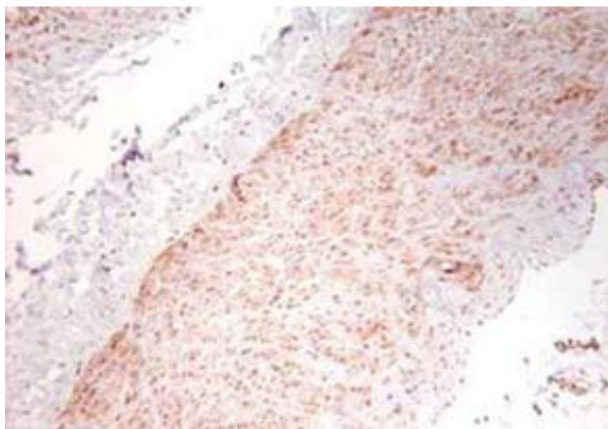
Expiration: Expiration date is one (1) year from date of receipt.

Images



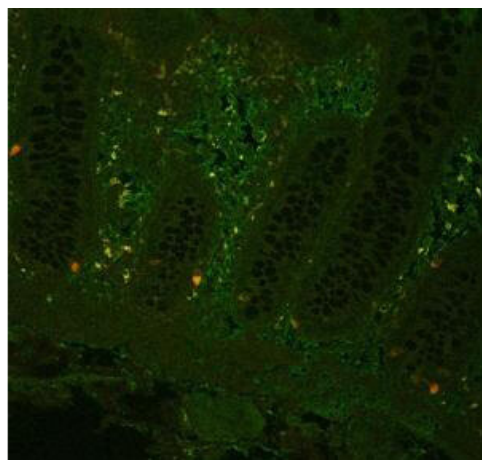
Immunohistochemistry

(I) Immunostaining for TNF- α : (A) negative control; (B) muscle from subject 465 yr (positive control); (C) muscle from weight maintainer; and (D) muscle from weight gainer. Anti-human TNF- α antibody (p/n 209-401-306) at 1:50. The sites of peroxidase binding were demonstrated with diaminobenzidine (p/n DAB-50). Fig 2. PMID: 16687193.



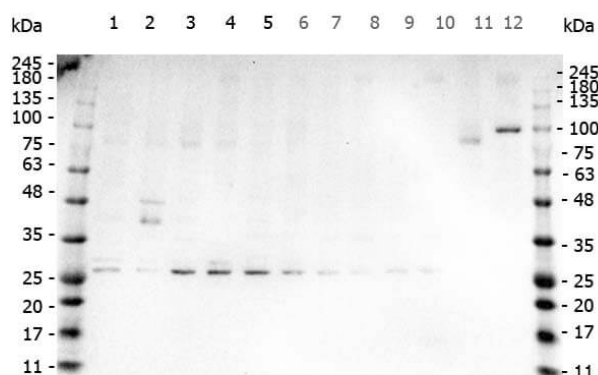
Immunohistochemistry

Immunohistochemistry using Rockland's polyclonal TNF α 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.



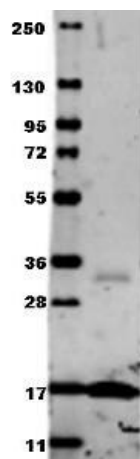
Immunohistochemistry

Fluorescent immunohistochemistry showing staining of human colon by Rockland's anti-TNF α (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 of Rabbit anti-TNF Alpha antibody. Marker: Opal Pre-stained ladder (p/n MB-210-0500). Lane 1: HEK293 lysate (p/n W09-000-365). Lane 2: HeLa Lysate (p/n W09-000-364). Lane 3: MCF-7 Lysate (p/n W09-000-360). Lane 4: Jurkat Lysate (p/n W09-000-370). Lane 5: A431 Lysate (p/n W09-000-361). Lane 6: A549 Lysate (p/n W09-001-372). Lane 7: LNCap Lysate (p/n W09-001-GJ9). Lane 8: MOLT-4 Lysate (p/n W09-001-GK2). Lane 9: Ramos Lysate (p/n W09-000-GK4). Lane 10: Raji Lysate (p/n W09-001-368). Lane 11: A-172 Lysate (p/n W09-001-GL5). Lane 12: NIH/3T3 Lysate (p/n W10-000-358). Load: 35 μ g per lane. Primary antibody: TNF Alpha antibody at 1 μ g/mL overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody (p/n 611-103-122) at 1:30,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS (p/n MB-082) for 30 min at RT. Predicted/Observed size: 26kDa for TNF Alpha.



Western Blot

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

References

- Harada F et al. Effect of systemic administration of lipopolysaccharides derived from *Porphyromonas gingivalis* on gene expression in mice kidney. *Med Mol Morphol.* (2018)
- Patricia Ewert et al. Disruption of tight junction structure in salivary glands from Sjögren's syndrome patients is linked to proinflammatory cytokine exposure. *Arthritis Rheum.* (2010)
- 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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