Datasheet for ABIN5596796

anti-TNF alpha antibody

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Overview

Quantity:	100 µL
Target:	TNF alpha
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Neutralization (Neut)

Product Details

Immunogen:	The whole rabbit serum used to produce this IgG fraction antibody was prepared by repeated immunizations with recombinant human TNFalpha produced in E.coli. Immunogen Type: RecombinantProtein
Isotype:	IgG
Specificity:	This antibody is primarily directed against mature 17,000 MW human TNFalpha and is useful in determining its presence in various assays. In general, this antibody also detects primate TNFalpha in the same formats using similar dilutions. The antibody does not recognize human TNGß (lymphotoxin). This IgG fraction antibody will recognize the cell-bound precursor of TNFalpha as a 26,000 protein in immunoblots, particularly in denatured samples. This antibody is also useful for neutralization of human and primate TNFalpha 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.
Characteristics:	Anti TNF alpha Antibody recognizes TNF alpha (TNF, cachexin, cachectin, tumor necrosis

Product Details

	factor-alpha or TNF-alpha) 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. TNFis 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).
Sterility:	Sterile filtered

Target Details

Target:	TNF alpha
Alternative Name:	TNF alpha (TNF alpha Products)
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. TNFis 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
Gene ID:	7124
UniProt:	P01375
Pathways:	NF-kappaB Signaling, Apoptosis, Caspase Cascade in Apoptosis, TLR Signaling, Cellular Response to Molecule of Bacterial Origin, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, Positive Regulation of Endopeptidase Activity, Hepatitis C, Protein targeting to Nucleus, Inflammasome

Application Details

Application Notes:	This IgG fraction antibody of anti-Human TNFα has been tested for use in neutralizations, ELISA, immunohistochemistry and immunoblotting. It recognizes the 17,000 MW TNFα. Reactivity in other immunoassays is unknown.
Comment:	Gene Name: TNFA
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1.0 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Without preservative
Storage:	4 °C/-20 °C
Storage Comment:	Store vial at 4 °C prior to restoration. For extended storage aliquot contents and freeze at -20 °C or below. 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 date is one (1) year from date of opening.
Expiry Date:	12 months

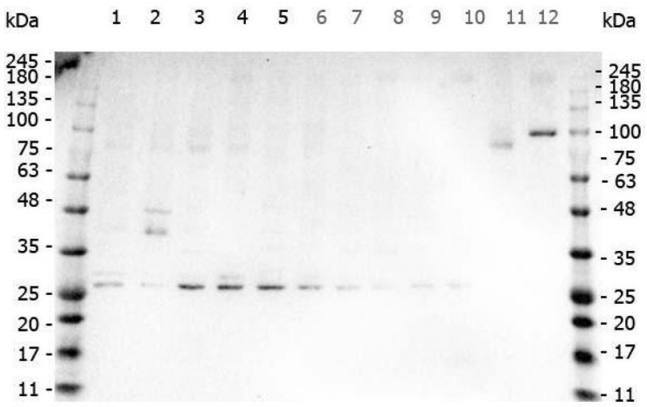
Publications

Product cited in:	Ida, Hikage, Itoh, Ida, Ohguro: "Prostaglandin F2α agonist-induced suppression of 3T3-L1 cell adipogenesis affects spatial formation of extra-cellular matrix." in: **Scientific reports**, Vol. 10, Issue 1, pp. 7958, (2020) (PubMed). Kumar Gupta, Sarkar, Wertheim, Pan, Carroll, Oxburgh: "Asynchronous mixing of kidney progenitor cells potentiates nephrogenesis in organoids." in: **Communications biology**, Vol. 3, Issue 1, pp. 231, (2020) (PubMed). Hwang, Huang, Burwell, Peterson, Connor, Weiss, Yu, Li: "In Situ Imaging of Tissue Remodeling with Collagen Hybridizing Peptides." in: **ACS nano**, Vol. 11, Issue 10, pp. 9825-9835, (2019) (PubMed). Tanaka, Ng, Yang Yu, Casco-Robles, Maruo, Tsonis, Chiba: "A developmentally regulated switch

from stem cells to dedifferentiation for limb muscle regeneration in newts." in: **Nature communications**, Vol. 7, pp. 11069, (2016) (PubMed).

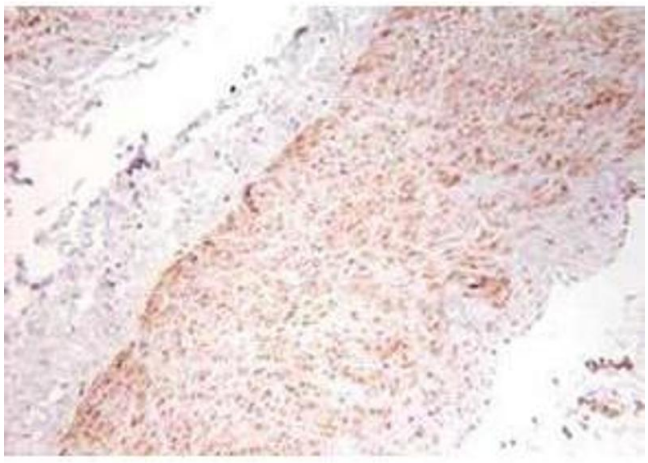
Fetting, Guay, Karolak, Iozzo, Adams, Maridas, Brown, Oxburgh: "FOXD1 promotes nephron progenitor differentiation by repressing decorin in the embryonic kidney." in: **Development (Cambridge, England)**, Vol. 141, Issue 1, pp. 17-27, (2014) (PubMed).

Validation report #300049 for Immunohistochemistry (IHC)



Western Blotting

Image 1. Western Blot of Rabbit anti-TNF Alpha antibody. Marker: Opal Pre-stained ladder . Lane 1: HEK293 lysate . Lane 2: HeLa Lysate . Lane 3: MCF-7 Lysate . Lane 4: Jurkat Lysate . Lane 5: A431 Lysate . Lane 6: A549 Lysate . Lane 7: LNCap Lysate . Lane 8: MOLT-4 Lysate . Lane 9: Ramos Lysate . Lane 10: Raji Lsyate . Lane 11: A-172 Lysate . Lane 12: NIH/3T3 Lysate . Load: 35 µg per lane. Primary antibody: TNF Alpha antibody at 1ug/mL overnight at 4C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:30,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS for 30 min at RT. Predicted/Observed size: 26kDa for TNF Alpha.



Immunohistochemistry

Image 2. Immunohistochemistry using 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.