Datasheet for ABIN3042817

anti-TNF alpha antibody (AA 80-235)

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Overview

Quantity:	100 µg
Target:	TNF alpha
Binding Specificity:	AA 80-235
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This TNF alpha antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Tumor necrosis factor(TNF) detection. Tested with WB, IHC-P, ELISA in Mouse.
Immunogen:	E. coli-derived mouse TNF alpha recombinant protein(Position: L80-L235).
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Tumor necrosis factor(TNF) detection. Tested with WB, IHC-P, ELISA in Mouse. Gene Name: tumor necrosis factor Protein Name: tumor necrosis factor
Purification:	Immunogen affinity purified.

Target Details

Target:	TNF alpha
Alternative Name:	TNF (TNF alpha Products)
Background:	TNF alpha(Tumor Necrosis Factor alpha) gene encodes a multifunctional proinflammatory cytokine that belongs to the tumor necrosis factor(TNF) superfamily. This cytokine is mainly secreted by macrophages. It can bind to, and thus functions through its receptors TNFRSF1A/TNFR1 and TNFRSF1B/TNFBR. This cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. This cytokine has been implicated in a variety of diseases, including autoimmune diseases, insulin resistance, and cancer. Knockout studies in mice also suggested the neuroprotective function of this cytokine. Synonyms: APC1 antibody|APC1 protein antibody|Cachectin antibody|DIF antibody|Differentiation inducing factor antibody|Macrophage cytotoxic factor antibody|MCF antibody|Necrosin antibody|TNF a antibody|TNF alpha antibody|TNF antibody|TNF Macrophage Derived antibody|TNF Monocyte Derived antibody|TNF Superfamily Member 2 antibody|TNF superfamily, member 2 antibody|TNF, macrophage derived antibody|TNF, monocyte derived antibody|TNF-a antibody| TNF-alpha antibody|TNFA antibody|TNFA_HUMAN antibody|TNFSF2 antibody|Tumor necrosis factor alpha antibody|Tumor necrosis factor antibody|Tumor necrosis factor ligand superfamily member 2 antibody|Tumor Necrosis Factor Precursor antibody|Tumor Necrosis Factor, Membrane Form antibody|Tumor necrosis factor, soluble form antibody|Tumour Necrosis Factor Alpha antibody
UniProt:	P06804
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:	WB: Concentration: 0.1-0.5 µg/mL, Species: Mouse IHC-P: Concentration: 0.5-1 µg/mL, Species: Mouse, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections. ELISA: Concentration: 0.1-0.5 µg/mL, Species: Mouse

Application Details

	Notes: Other applications have not been tested. Optimal dilutions should be determined by end users.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freezing and thawing.
Storage:	4 °C/-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
Expiry Date:	12 months

Publications

Product cited in:	Zhang, Wang, Yue, Liu, Liu: "Construction of a CXCL12-KDEL fusion gene to inhibit head and neck squamous cell carcinoma metastasis by intracellular sequestration of CXCR4." in: **BioMed research international**, Vol. 2015, pp. 195828, (2015) (PubMed). Zhu, Sun, Tan, Xu, Dai, Wang, Fan, Zhou: "Tacrolimus promotes hepatocellular carcinoma and enhances CXCR4/SDF-1α expression in vivo." in: **Molecular medicine reports**, Vol. 10, Issue 2, pp. 585-92, (2015) (PubMed).

Publications

Liu, Wang, Wang, Wang: "Anticancer effects of chemokine receptor 4(CXCR4) gene silenced by CXCR4-siRNA in nude mice model of ovarian cancer." in: **Cell biochemistry and biophysics**, Vol. 70, Issue 3, pp. 1893-900, (2014) (PubMed).

Li, Chen, Yuan, Zhou, He, Zu, Qi: "CXCR4 expression in bladder transitional cell carcinoma and its relationship with clinicopathological features." in: **Urologia internationalis**, Vol. 92, Issue 2, pp. 157-63, (2014) (PubMed).

Tan, Chang, Liu, Tang: "Silencing of CXCR4 inhibits tumor cell proliferation and neural invasion in human hilar cholangiocarcinoma." in: **Gut and liver**, Vol. 8, Issue 2, pp. 196-204, (2014) (PubMed).

There are more publications referencing this product on: Product page

Images

Western Blotting

Image 1. Western blot analysis of TNF alpha using anti-TNF alpha antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V(Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane: Recombinant Mouse TNFÎ± Protein 0.5ng, After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TNF alpha antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TNF alpha at approximately

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17KD. The expected band size for TNF alpha is at 17KD.