

# **Anti-TNF alpha Antibody**

Catalog Number: RP1000

#### **About Tnf**

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.

#### Overview

Product Name	Anti-TNF alpha Antibody
Reactive Species	Mouse
Description	Boster Bio Anti-TNF alpha Antibody catalog # RP1000. Tested in ELISA, IHC, WB applications. This antibody reacts with Mouse.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3. Carrier free (No BSA) form available in stock. If you want this antibody carrier free please specify "Carrier Free" or "No BSA" in your order note.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P06804

## **Technical Details**

Immunogen	E. coli-derived mouse TNF alpha recombinant protein (Position: L80-L235).
Predicted Reactive Species	Bovine
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized





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Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.  If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.  Some PubMed article(s) citing the expression level of this target are as follows:  Boster Bio's internal QC testing used:  Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, By Heat ELISA, 0.1-0.5ug/ml, Mouse, -  Western blot, 0.1-0.5ug/ml, Mouse



### Anti-TNF alpha Antibody (RP1000) Images



Figure. Western blot analysis of TNF alpha using anti-TNF alpha antibody (RP1000).

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 TNFalpha 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 # RP1000) at 0.5 ug/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 17KD. The expected band size for TNF alpha is at 17KD.

### **63 Publications Citing This Product**

- 1. PubMed ID: 32854712, Lan Q,Lu R,Chen H,Pang Y, Xiong F,Shen C,Qin Z,Zheng L,Xu G,Zhao J.MMP-13 enzyme and pH responsive theranostic nanoplatform for osteoarthritis. J Nanobiotechnology. 2020 Aug 27;18(1):117.doi:10.1186/s12951-020-00666-7. PMID:32854712:PMCID:PMC7450974.
- 2. PubMed ID: 25473797, Li H, Qiu P, Wang J, Niu C, Pan S. Food Funct. 2015 Feb;6(2):470-8. Doi: 10.1039/C4Fo00739E. Effects Of Compound Ginkgo Biloba On Intestinal Permeability In Rats With Alcohol-Induced Liver Injury.
- 3. PubMed ID: 25858471, Xia W, Li Dw, Xiang L, Chang Jj, Xia Zl, Han Ej. Chin J Physiol. 2015 Apr 30;58(2):104-13. Doi: 10.4077/Cjp.2015.Bad273. Neuroprotective Effects Of An Aqueous Extract Of Futokadsura Stem In An A??-Induced Alzheimer'S Disease-Like Rat Model.

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