

Anti-TNF alpha Antibody Picoband®

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/TNFR. 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 Picoband®
Reactive Species	Mouse
Description	Boster Bio Anti- TNF alpha Antibody catalog # RP1000. Tested in ELISA, IHC, WB applications. This antibody reacts with Mouse. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
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

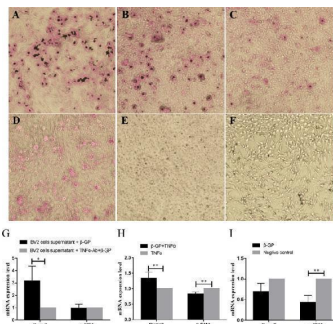
Immunogen	E. coli-derived mouse TNF alpha recombinant protein (Position: L80-L235).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity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

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse ELISA, 0.1-0.5ug/ml, - Western blot, 0.1-0.5ug/ml, Mouse

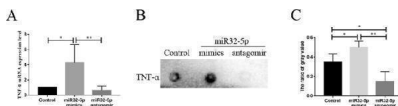
Anti-TNF alpha Antibody Picoband® (RP1000) Images



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.

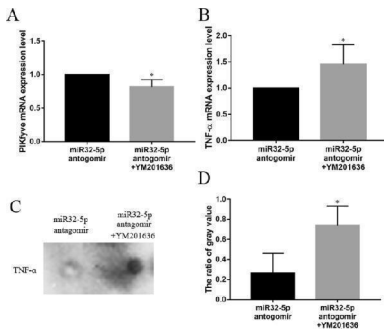


The influence of TNFalpha expressed by BV2 cells for VSMC calcification. a - f Alizarin red staining analysis of VSMC calcification in differently stimulated condition (40x), a group1 added 10% BV2 culture supernatant and 10 mM beta-glycerophosphate, b group3 added 10 mM beta-glycerophosphate and 10 ng/ml mouse TNFalpha, c group5 10 mM beta-glycerophosphate, d group2 added 10% BV2 culture supernatant, which was incubated with rabbit anti-mouse TNFalpha antibody, and 10 mM beta-glycerophosphate, e group4 added 10 ng/ml mouse TNFalpha, f group6 added equal volume PBS. g-i qRT-PCR analysis for the expression of Runx2 and alpha-SMA in VSMC, g the mRNA expression of Runx2 and alpha-SMA in groups 1 and 2, h the mRNA expression of Runx2 and alpha-SMA in groups 3 and 4, i the mRNA expression of Runx2 and alpha-SMA in groups 5 and 6. Bars represent mean \pm S.D. (n \geq 3). Significant difference marked with one (p



miR32-5p up-regulated TNFa producing in BV2 cells. a The mRNA expression of TNFa in BV2 cells after LPS stimulated by qRT-PCR analyzed. b The protein expression of TNFa in BV2 cells after LPS stimulated by Dot-ELISA analyzed. c The gray value analysis of Dot-ELISA. Bars represent mean \pm S.D. (n \geq 3). Significant difference marked with one (p

The influence of PIKfyve for TNFa production in BV2 cells by qRT-PCR and Dot-ELISA analysis. a The expression changes of PIKfyve after treated with YM201636 by qRT-PCR analysis. b The expression changes of TNFa after treated with YM201636 by qRT-PCR analysis. c The expression changes of TNFa after treated with YM201636 by Dot-ELISA analysis. d The gray value analysis for Dot-ELISA. Bars represent



mean \pm S.D. (n \geq 3). Significant difference marked with one (p

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 Zi, 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 β -Induced Alzheimer'S Disease-Like Rat Model.

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Anti-TNF alpha Antibody

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