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antibody and ELISA experts

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Anti-TNF alpha Antibody Picoband®

Catalog Number: A00002-5

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 Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-TNF alpha/Tnf Antibody Picoband® catalog # A00002-5. Tested in ELISA, WB applications. This antibody reacts with Mouse, Rat, offering an essential tool for scientific applications such as cell lysate analysis and breast adenocarcinoma cell line research. 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, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na2HPO4.
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/Tnf recombinant protein (Position: D89-E185).
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.

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Suggested Dilutions	Western blot, 0.25-0.5ug/ml, Mouse, Rat ELISA, 0.1-0.5ug/ml, -

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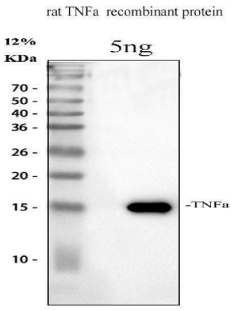
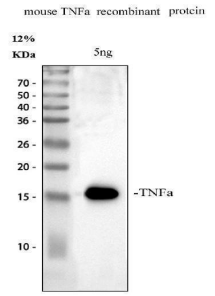
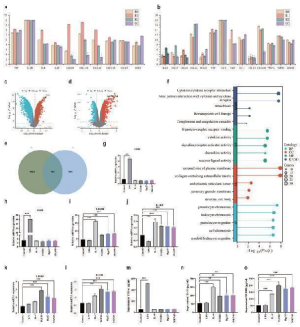
Anti-TNF alpha Antibody Picoband® (A00002-5) Images



Western blot analysis of TNF alpha using anti-TNF alpha antibody (A00002-5). Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: recombinant rat TNF alpha protein 5 ng, After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 (A00002-5) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for TNF alpha at approximately 17 kDa.



Western blot analysis of TNF alpha using anti-TNF alpha antibody (A00002-5). Electrophoresis was performed on a 12% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: recombinant mouse TNF alpha protein 5 ng. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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 (A00002-5) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for TNF alpha at approximately 17 kDa.



The role of gastric cancer cells in transforming macrophages in the TME. a The expression of M1 macrophage marker proteins in different groups. b The expression of M2 macrophage marker proteins in different groups. c Differential gene expression between M0 and gastric cancer cell metabolite intervention group. d Differential gene expression between M2 and gastric cancer cell metabolite intervention group. e Intersection statistics of differentially expressed genes between M2 and gastric cancer cell metabolite intervention group. f Intersection gene enrichment statistics. g RT-qPCR was used to detect the expression of CD86 mRNA. h RT-qPCR was used to detect the expression of iNOS mRNA. i RT-qPCR was used to detect the expression of CD206 mRNA. j RT-qPCR was used to detect the expression of IL1R2 mRNA. k RT-qPCR was used to detect the expression of CD163 mRNA. l RT-qPCR was used to detect the expression of TGFbeta mRNA. m ELISA

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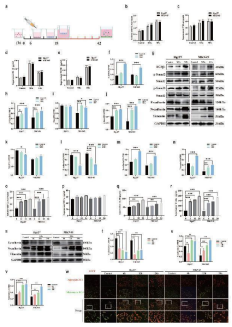
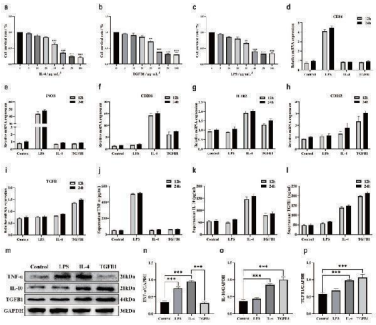
was used to detect TNF-alpha levels. n ELISA detects IL-10 levels. o ELISA detects the content of TGFbeta1. *p



The effect of M2 subtype macrophages on TGFbeta1 related pathway and epithelial mesenchymal transition in gastric cancer cells. a Cell intervention pattern diagram. b RT-qPCR was used to detect the levels of TGFbeta mRNA in different intervention groups. c ELISA was used to test the expression of TNF-alpha in different intervention groups. d ELISA test the expression of IL-10 in different intervention groups. e ELISA was used to test the expression of TGFbeta1 in different intervention groups. f The expression results of TGFbeta1 protein. g The WB results of different interventions on histone expression. h The expression results of p-Smad2 protein. i The expression results of Smad2 protein. j The expression results of p-Smad3 protein. k The expression results of Smad3 protein. l The expression results of E-cadherin protein. m Results of N-cadherin protein expression. n Results of Vimentin protein expression. o RT-qPCR was used to detect the content of TGFbeta mRNA at different intervention times. p ELISA was used to test the expression of TNF-alpha at different intervention times. q ELISA test the expression of IL-10 at different intervention times. r ELISA was used to test the expression of TGFbeta1 at different intervention times. s WB results of protein expression at different intervention times. t The expression results of E-cadherin protein. u The expression results of N-cadherin protein. v Results of Vimentin protein expression. w Fluorescence results of mitochondrial membrane potential at different intervention times. Scale bar=50 um. *p



Different inducers promote polarization of different subtypes of macrophages. a The CCK-8 method was used to detect the survival of M0 macrophages after 24 h of IL-4 intervention. b The CCK-8 method was used to detect the survival of M0 macrophages after 24 h of intervention with TGFbeta1. c The CCK-8 method was used to detect the survival of M0 macrophages after LPS intervention for 24 h. d RT-qPCR was used to detect the expression of CD86 mRNA. e RT-qPCR was used to detect the expression of iNOS mRNA. f RT-qPCR was used to detect the expression of CD206 mRNA. g RT-qPCR was used to detect the expression of IL1R2 mRNA. h RT-qPCR was used to detect the expression of CD163 mRNA. i RT-qPCR was used to detect the expression of TGFbeta mRNA. j ELISA detects TNF - alpha levels. k ELISA was used to detect IL-10 levels. l ELISA detects the content of TGFbeta1. m The WB results of different interventions on histone expression. f TNF-alpha protein expression results. f IL-10 protein expression results. f TGFbeta1 protein expression results. *p

31 Publications Citing This Product

1. PubMed ID: 10.4103/1673-5374.147934, Puerarin protects brain tissue against cerebral ischemia/reperfusion injury by inhibiting the inflammatory response

2. PubMed ID: PMID:26191204, Hydrogen sulfide accelerates wound healing in diabetic rats

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3. PubMed ID: 10.1186/1749-8546-4-13, Effects of triptolide from Radix Tripterygium wilfordii (Leigongteng) on cartilage cytokines and transcription factor NF-kappaB: a study on induced arthritis in rats

Visit bosterbio.com/anti-tnf-alpha-tnf-picoband-trade-antibody-a00002-5-boster.html to see all 31 publications.

Anti-TNF alpha Antibody

For Research Use Only. Not for use in diagnostic procedures.