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antibody and ELISA experts

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Anti-TNF alpha Antibody Picoband®

Catalog Number: PB9246

About Tnf

TNFalpha (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
Description	Boster Bio Anti-TNF alpha Antibody Picoband® catalog # PB9246. Tested in 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	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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-Q227). Mouse TNF alpha shares 79% and 95% amino acid (aa) sequence identity with human and rat TNF alpha, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.

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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	Western blot, 0.1-0.5ug/ml, Mouse

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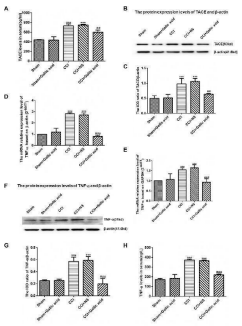
Anti-TNF alpha Antibody Picoband® (PB9246) Images

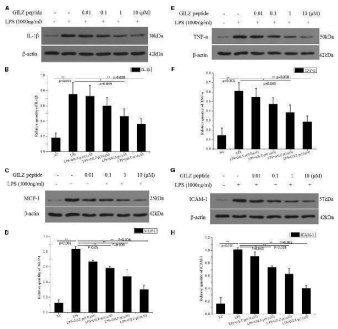
Anti-TNF alpha Picoband antibody, PB9246, Western blottingAll lanes: Anti TNF alpha (PB9246) at 0.5ug/mlWB: Recombinant Mouse TNF alpha Protein 0.5ngPredicted bind size: 15KDObserved bind size: 15KD

Anti-TNF alpha Picoband antibody, PB9246, Western blottingAll lanes: Anti TNF alpha (PB9246) at 0.5ug/mlLane 1: Mouse Kidney Tissue Lysate at 50ugLane 2: Mouse Intestine Tissue Lysate at 50ugPredicted bind size: 25KDObserved bind size: 25KD

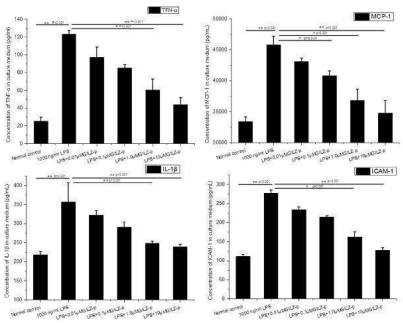


Effect of gallic acid on the expression of TACE and TNF-alpha. (A). The expression of TACE in serum was detected by enzyme-linked immunosorbent assay ($F (4, 10) = 89.68$, $p < 0.001$). (B). Detection of the TACE and beta -actin protein expression in the DRG by Western blotting. (C). The relative protein expression of TACE ($F (4, 10) = 24.12$, $p < 0.001$). (D). The expression of TNF-alpha mRNA was detected by qRT-PCR using beta -actin as the housekeeper gene ($F (4, 10) = 174.2$, $p < 0.001$). (E). The expression of TNF-alpha mRNA was detected by qRT-PCR using GAPDH as the housekeeper gene ($F (4, 10) = 22.63$, $p < 0.001$). (F). In the DRG, TNF-alpha and beta -actin protein expression was detected by Western blotting. (G) . The relative protein expression of TNF-alpha ($F (4, 10) = 33.47$, $p < 0.001$). (H). The expression of TNF-alpha in serum was detected by enzyme-linked immunosorbent assay ($F (4, 10) = 212.2$, $p < 0.001$). One-way ANOVA was used to detect the expression of TACE and TNF-alpha. Each group consisted of eight rats. Data are presented as mean ± SEM. *** $p < 0.001$ versus the Sham group, ### $p < 0.001$ versus the CCI group.Index in PubMed under a CC BY license. PMID: 34512324

The synthesized GILZ-p inhibited LPS induced inflammatory cytokine expression in Müller cells. Western blot analysis was performed to determine the protein expression levels of pro-IL-1beta (A,B) , MCP-1 (C,D) , TNF-alpha (E,F) , and ICAM-1 (G,H) in Müller cells treated with 1000 ng/ml LPS in combination with different concentrations of GILZ-p (0.01, 0.1, 1, and 10 uM)for 24 h. beta-actin was used as the loading control. The results of quantitative analysis, as



determined by densitometric analysis, were expressed as relative to beta-actin. Data represent the mean ± SE; the Mann–Whitney U -test was used for comparisons between two groups. n = 3 for each group. ∗ P < 0.05, ∗∗ P < 0.01. TNF-alpha, tumor necrosis factor-alpha; ICAM-1, intercellular adhesion molecule-1; MCP-1, monocyte chemoattractant protein-1.Index in PubMed under a CC BY license. PMID: 29681857



The synthesized GILZ-p decreased LPS induced inflammatory cytokine secretion in culture medium of Müller cells. The Enzyme-Linked Immunosorbent Assays (ELISA) were performed to determine the protein expression levels of IL-1beta, MCP-1, TNF-alpha, and ICAM-1 in Müller cells treated with 1000 ng/ml LPS in combination with different concentrations of GILZ-p (0.01, 0.1, 1, and 10 uM) for 24 h. Data represent the mean ± SE; the Mann–Whitney U -test was used for comparisons between two groups. n = 6 for each group. ∗ P < 0.05, ∗∗ P < 0.01.Index in PubMed under a CC BY license. PMID: 29681857

71 Publications Citing This Product

1. PubMed ID: 33607154, Liao L,Huang L,Wei X,Yin L,Wei X,Li T.Bioinformatic and biochemical studies of formononetin against liver injure.Life Sci.2021 Feb 16:119229.doi:10.1016/j.lfs.2021.119229.Epub ahead of print.PMID:33607154.

2. PubMed ID: 33607154, Liao L,Huang L,Wei X,Yin L,Wei X,Li T.Bioinformatic and biochemical studies of formononetin against liver injure.Life Sci.2021 Feb 16:119229.doi:10.1016/j.lfs.2021.119229.Epub ahead of print.PMID:33607154.

3. PubMed ID: 33642941, Ye D,Hu Y,Zhu N,Gu W,Long G,Tao E,Fang M,Jiang M. Exploratory Investigation of Intestinal Structure and Function after Stroke in Mice. Mediators Inflamm.2021 Feb 15;2021:1315797.doi: 10.1155/2021/1315797.PMID:33642941;PMCID:PMC7902147.

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Anti-TNF alpha Antibody

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