

# **Anti-TNF alpha Antibody Picoband™**

Catalog Number: A00002-4

#### **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. And this cytokine is involved in the regulation of a wide spectrum of biological processes including cell proliferation, differentiation, apoptosis, lipid metabolism, and coagulation. Moreover, 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 # A00002-4. Tested in WB applications. This antibody reacts with Mouse.
Application	WB
Clonality	Polyclonal IC-16
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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	A synthetic peptide corresponding to a sequence at the C-terminus of mouse TNF alpha, which shares 92.3% and 86.7% amino acid (aa) sequence identity with human and rat TNF alpha, respectively.
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized





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antibody and ELISA experts

Concentration	Add 0.2ml of distilled water will yield a concentration of 500ug/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:  Western blot, 0.1-0.5ug/ml, Mouse



### Anti-TNF alpha Antibody Picoband™ (A00002-4) Images

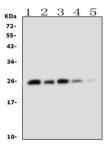


Figure 1. Western blot analysis of TNF alpha using anti-TNF alpha antibody (A00002-4).

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 1: mouse spleen tissue lysates,

Lane 2: mouse thymus tissue lysates.

Lane 3: mouse liver tissue lysates,

Lane 4: mouse lung tissue lysates,

Lane 5: mouse kidney tissue lysates.

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 # A00002-4) 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 25KD. The expected band size for TNF alpha

### 17 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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