

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/TNFR2. 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, Flow Cytometry, IF, ICC, and WB applications. This antibody reacts with Mouse and Rat.
Application	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal IC-16
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg 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	E.coli-derived mouse TNF alpha/Tnf recombinant protein (Position: D89-E185).
Predicted Reactive Species	Chicken
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 ICC.
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.25-0.5ug/ml, Mouse, Rat</p> <p>Immunocytochemistry/Immunofluorescence, 5ug/ml, Mouse</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells, Mouse</p> <p>Direct ELISA, 0.1-0.5ug/ml, Mouse</p>

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

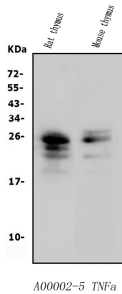


Figure 1. Western blot analysis of TNF Alpha/Tnf using anti-TNF Alpha/Tnf antibody (A00002-5). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: rat thymus tissue lysates,
Lane 2: mouse thymus 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/Tnf antigen affinity purified polyclonal antibody (Catalog # 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 at a dilution of 1:5000 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/Tnf at approximately 25KD. The expected band size for TNF Alpha/Tnf is at 25KD.

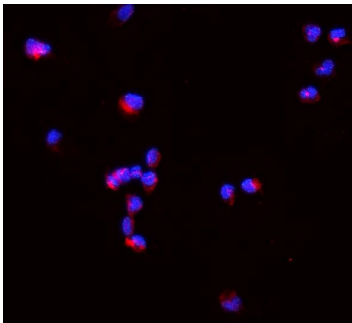


Figure 2. IF analysis of TNF Alpha/Tnf using anti-TNF Alpha/Tnf antibody (A00002-5).

TNF Alpha/Tnf was detected in immunocytochemical section of HEPA1-6 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-TNF Alpha/Tnf Antibody (A00002-5) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

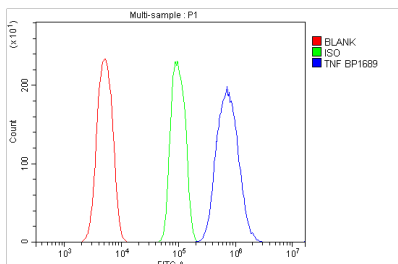


Figure 3. Flow Cytometry analysis of Raw264.7 cells using anti-TNF Alpha/Tnf antibody (A00002-5).

Overlay histogram showing Raw264.7 cells stained with A00002-5 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-TNF Alpha/Tnf Antibody (A00002-5, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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

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.

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-TNF alpha Antibody