

Anti-MCP1/CCL2 Antibody Picoband®

Catalog Number: PB9570

About CCL2

Monocyte chemoattractant protein-1 (MCP-1), a member of the chemokine (chemotactic cytokine) family, is a potent monocyte agonist that is upregulated by oxidized lipids. MCP-1 is also known as CCL2, SCYA2, MCAF. MCAF is a member of family of factors involved in immune and inflammatory responses. The amino acid sequence deduced from the nucleotide sequence reveals the primary structure of the MCAF precursor to be composed of a putative signal peptide sequence of 23 amino acid residues and a mature MCAF sequence of 76 amino acid residues. MCP-1 plays a unique and crucial role in the initiation of atherosclerosis and may provide a new therapeutic target in this disorder. Human MCP-1 is a 8.7KDa non-glycoprotein, consisting of 99 amino acids in precursor form and 76 amino acids in mature form.

Overview

Product Name	Anti-MCP1/CCL2 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-MCP1/CCL2 Antibody Picoband® catalog # PB9570. Tested in ELISA, IHC, WB applications. This antibody reacts with Human. 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 antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ , and 0.05 mg Na ₃ N. *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	P13500

Technical Details

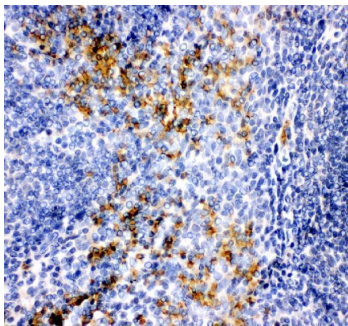
Immunogen	E. coli-derived human MCP-1 recombinant protein (Position: Q24-T99). Human MCP-1 shares 60.9% and 59.4% amino acid (aa) sequence identity with mouse and rat MCP-1, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

	blot, supported by SA1022 in 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	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human ELISA, 0.1-0.5ug/ml, -

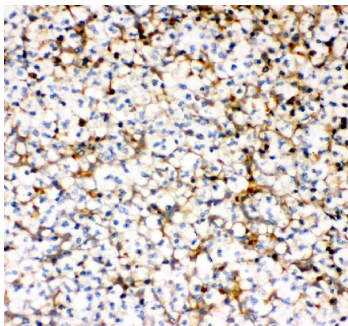
Anti-MCP1/CCL2 Antibody Picoband® (PB9570) Images



Western blot analysis of MCP-1 using anti-MCP-1 antibody (PB9570). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: SW620 Whole Cell Lysate at 40ug. 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-MCP-1 antigen affinity purified polyclonal antibody (Catalog # PB9570) 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 MCP-1 at approximately 11 kDa. The expected band size for MCP-1 is at 11 kDa.



IHC analysis of MCP1/CCL2 using anti-MCP1/CCL2 antibody (PB9570). MCP1/CCL2 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MCP1/CCL2 Antibody (PB9570) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of MCP1/CCL2 using anti-MCP1/CCL2 antibody (PB9570). MCP1/CCL2 was detected in a paraffin-embedded section of human appendix adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MCP1/CCL2 Antibody (PB9570) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

25 Publications Citing This Product

1. PubMed ID: 25210730, Salusin-?, but Not Salusin-?, Promotes Human Umbilical Vein Endothelial Cell Inflammation via the p38 MAPK/JNK-NF- κ B Pathway
2. PubMed ID: 26221302, Comparison of biomarkers in rat renal ischemia-reperfusion injury

3. PubMed ID: 22377751, Liu Z, Wang T, Yang J, Wang S, Yang W, Liu J, Ye Z. Mol Med Rep. 2012 May;5(5):1241-4. Doi: 10.3892/Mmr.2012.813. Epub 2012 Feb 28. Calcium Oxalate Monohydrate Crystals Stimulate Monocyte Chemoattractant Protein-1 And Transforming Grow...

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Anti-MCP1/CCL2 Antibody

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