

## Anti-MGP Antibody Picoband®

Catalog Number: PB9954

### About MGP

Matrix Gla protein (MGP) is an 84-residue vitamin K-dependent protein initially isolated from bovine bone. In addition, MGP is a 10-kD protein produced and secreted by vascular smooth muscle cells and chondrocytes and significantly accumulated in bone, cartilage, and dentin. It is also expressed at high levels in heart, kidney, and lung and is upregulated by vitamin D in bone cells. MGP has a high affinity binding to calcium ions, similar to other Gla-containing proteins. The protein acts as an inhibitor of vascular mineralization and plays a role in bone organization. And this gene is mapped to 12p12.3.

### Overview

Product Name	Anti-MGP Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-MGP Antibody Picoband® catalog # PB9954. Tested in 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	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg NaN <sub>3</sub> . *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	P08493

### Technical Details

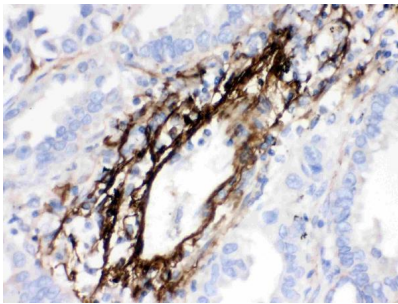
Immunogen	E.coli-derived human MGP recombinant protein (Position: Y20-F96). Human MGP shares 84.4% and 80.5% amino acid (aa) sequence identity with mouse and rat MGP, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for 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	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Western blot, 0.1-0.5ug/ml, Human

## Anti-MGP Antibody Picoband® (PB9954) Images



Western blot analysis of MGP using anti-MGP antibody (PB9954). 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 30 ug of sample under reducing conditions. Lane 1: JURKAT whole cell lysates. 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-MGP antigen affinity purified polyclonal antibody (Catalog # PB9954) 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 MGP at approximately 12 kDa. The expected band size for MGP is at 12 kDa.



IHC analysis of MGP using anti-MGP antibody (PB9954). MGP was detected in a paraffin-embedded section of human lung cancer 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 1 ug/ml rabbit anti-MGP Antibody (PB9954) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

### Submit a product review to [Biocompare.com](https://www.biocompare.com)

Submit a review of this product to [Biocompare.com](https://www.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-MGP Antibody

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