

Anti-Osteopontin/SPP1 Antibody Picoband®

Catalog Number: PA1431

About SPP1

Osteopontin (OPN) also called urinary stone protein, secreted phosphoprotein 1 (SPP1), bone sialoprotein, and early T lymphocyte activation 1 (ETA1). Osteopontin is a phosphorylated glycoprotein secreted to the mineralizing extracellular matrix by osteoblasts during bone development. Osteopontin is presumably involved in stone formation as stone matrix. The deduced protein sequence reveals a 317-amino acid protein (34,982 Da) containing a 16-amino acid hydrophobic signal sequence and a 33,352-Da protein destined to undergo extensive post-translational modifications before being secreted from the cell. The gene is located on human chromosome 4. The standard product used in this kit is recombinant human OPN, consisting of 17-314 amino acid sequence with the molecular mass of 32.9KDa. As a result of glycosylation, the molecular mass is 60-65KDa.

Overview

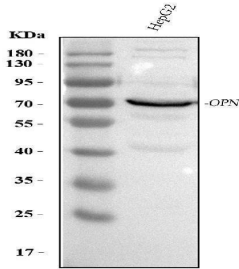
Product Name	Anti-Osteopontin/SPP1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Osteopontin/SPP1 Antibody catalog # PA1431. Tested in WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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	P10451

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Osteopontin, different from the related mouse sequence by six amino acids.
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
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

Anti-Osteopontin/SPP1 Antibody Picoband® (PA1431) Images



Western blot analysis of OPN/SPP1 using anti-OPN/SPP1 antibody (PA1431). 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: human HepG2 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-OPN/SPP1 antigen affinity purified polyclonal antibody (Catalog # PA1431) 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 OPN/SPP1 at approximately 65 kDa. The expected band size for OPN/SPP1 is at 35 kDa.

5 Publications Citing This Product

1. PubMed ID: 27391973, Reduced Expression of the Extracellular Calcium-Sensing Receptor (CaSR) Is Associated with Activation of the Renin-Angiotensin System (RAS) to Promote Vascular Remodeling in the Pathogenesis of Essential Hypertension
2. PubMed ID: 29218094, (+)-Cholesten-3-one induces osteogenic differentiation of bone marrow mesenchymal stem cells by activating vitamin D receptor
3. PubMed ID: 26078764, Effects of Naringin on Proliferation and Osteogenic Differentiation of Human Periodontal Ligament Stem Cells In Vitro and In Vivo

Visit bosterbio.com/anti-osteopontin-antibody-pa1431-boster.html to see all 5 publications.

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