

Anti-IBSP Antibody Picoband™

Catalog Number: A03183

About IBSP

IBSP (integrin-binding sialoprotein) is also known as BSP. The protein encoded by this gene is a major structural protein of the bone matrix. Bone sialoprotein is an acidic glycoprotein of approximately 70 kD that undergoes extensive posttranslational modifications. It constitutes approximately 12% of the noncollagenous proteins in human bone and is synthesized by skeletal-associated cell types, including hypertrophic chondrocytes, osteoblasts, osteocytes, and osteoclasts. The only extraskelatal site of its synthesis is the trophoblast. This protein binds to calcium and hydroxyapatite via its acidic amino acid clusters, and mediates cell attachment through an RGD sequence that recognizes the vitronectin receptor. The BSP gene is mapped to 4q22.1.

Overview

Product Name	Anti-IBSP Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-IBSP Antibody Picoband™ catalog # A03183. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
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	IBSP: P21815

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human IBSP, which shares 88.9% and 87% amino acid (aa) sequence identity with mouse and rat IBSP, respectively.
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	<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, 0.1-0.5ug/ml</p>

Anti-IBSP Antibody Picoband™ (A03183) Images

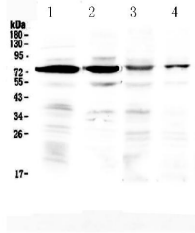


Figure 1. Western blot analysis of IBSP using anti-IBSP antibody (A03183).

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 brain tissue lysates,

Lane 2: mouse brain tissue lysates,

Lane 3: human Hela whole cell lysates,

Lane 4: human U2OS whole cell 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-IBSP antigen affinity purified polyclonal antibody (Catalog # A03183) 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 IBSP at approximately 75KD. The expected band size for IBSP is at 35KD.

3 Publications Citing This Product

1. PubMed ID: 30988819, Liu B,Xu M,Guo Z,Liu J,Chu X,Jiang H.Interleukin-8 promotes prostate cancer bone metastasis through upregulation of bone sialoprotein.Oncol Lett.2019 May;17(5):4607-4613.doi:10.3892/ol.2019.10138.Epub 2019 Mar 12.PMID:30988819;PMCID:PMC6447917.
2. PubMed ID: 24265840, The Osteogenic Potential of Mesoporous Bioglasses/Silk and Non-Mesoporous Bioglasses/Silk Scaffolds in Ovariectomized Rats: In vitro and In vivo Evaluation
3. PubMed ID: 27347083, Effect of kidney-reinforcing and marrow-beneficial Chinese medicine on bone metabolism-related factors following spinal cord injury in rats

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