

Anti-BMP-5 Antibody
Catalog # ABO12375**Specification**

Anti-BMP-5 Antibody - Product Information

Application	WB, IHC-P, E
Primary Accession	P22003
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Bone morphogenetic protein 5(BMP5) detection. Tested with WB, IHC-P, ELISA in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-BMP-5 Antibody - Additional Information

Gene ID 653

Other Names

Bone morphogenetic protein 5, BMP-5, BMP5

Calculated MW

51737 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
ELISA , 0.1-0.5 µg/ml, Human, Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Secreted.

Tissue Specificity

Expressed in the lung and liver.

Protein Name

Bone morphogenetic protein 5

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human BMP-5 (332-365aa HQDSSRMSSVG DYNTSEKQACKKHELYVSFRDL), different from the related mouse sequence by three amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.

Anti-BMP-5 Antibody - Protein Information**Name** BMP5**Function**

Growth factor of the TGF-beta superfamily that plays essential roles in many developmental processes, including cartilage and bone formation or neurogenesis (PubMed:11580864, PubMed:29321139). Initiates the canonical BMP signaling cascade by associating with type I receptor BMPR1A and type II receptor BMPR2 (PubMed:11580864). In turn, BMPR1A propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes (PubMed:11580864, PubMed:29321139). Can also signal through non-canonical pathway such as MAPK p38 signaling cascade to promote chondrogenic differentiation (PubMed:20402566). Promotes the expression of HAMP, this is repressed by its interaction with ERFE (PubMed:30097509).

Cellular Location

Secreted.

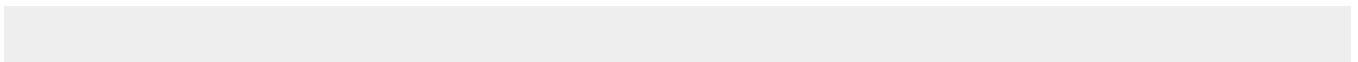
Tissue Location

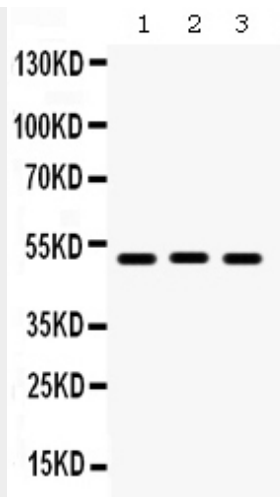
Expressed in the lung and liver.

Anti-BMP-5 Antibody - Protocols

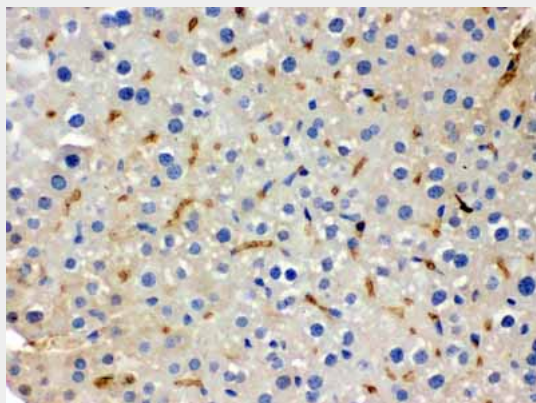
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

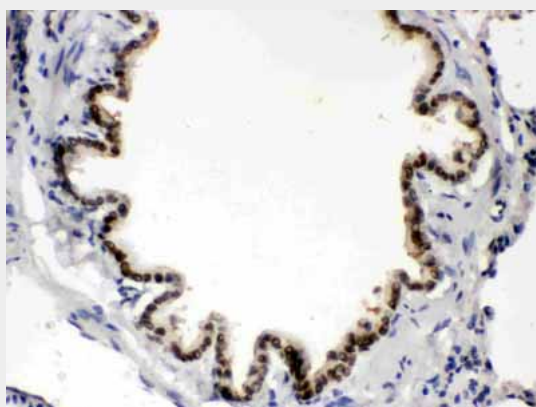
Anti-BMP-5 Antibody - Images



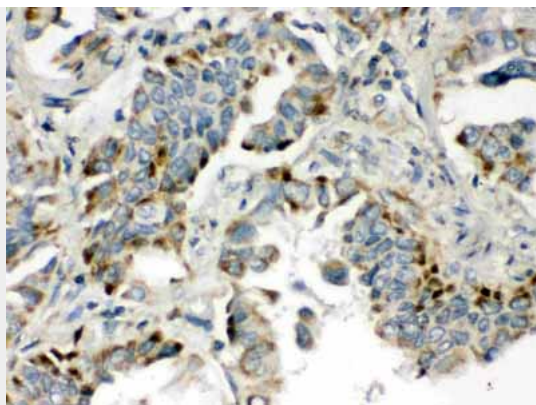
Anti- BMP-5 Picoband antibody, ABO12375, Western blottingAll lanes: Anti BMP-5 (ABO12375) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: Mouse Liver Tissue Lysate at 50ugLane 3: A549 Whole Cell Lysate at 40ugPredicted bind size: 51KDObserved bind size: 51KD



Anti- BMP-5 Picoband antibody, ABO12375, IHC(P)IHC(P): Mouse Liver Tissue



Anti- BMP5 Picoband antibody, ABO12375, IHC(P)IHC(P): Rat Lung Tissue



Anti- BMP5 Picoband antibody, ABO12375, IHC(P)IHC(P): Human Lung Cancer Tissue

Anti-BMP-5 Antibody - Background

Bone morphogenetic protein 5 is a protein that in humans is encoded by the BMP5 gene. This gene encodes a member of the bone morphogenetic protein family which is part of the transforming growth factor-beta superfamily. The superfamily includes large families of growth and differentiation factors. Bone morphogenetic proteins were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site. These proteins are synthesized as prepropeptides, cleaved, and then processed into dimeric proteins. And this protein may act as an important signaling molecule within the trabecular meshwork and optic nerve head, and may play a potential role in glaucoma pathogenesis. This gene is differentially regulated during the formation of various tumors.