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Bmp5 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1716a

Product Information

Application	IHC-P, WB, E
Primary Accession	P22003
Other Accession	P49003
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB1859
Calculated MW	51737
Antigen Region	16-46

Additional Information

Gene ID	653
Other Names	Bone morphogenetic protein 5, BMP-5, BMP5
Target/Specificity	This Bmp5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 16-46 amino acids from the N-terminal region of human Bmp5.
Dilution	IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Bmp5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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.

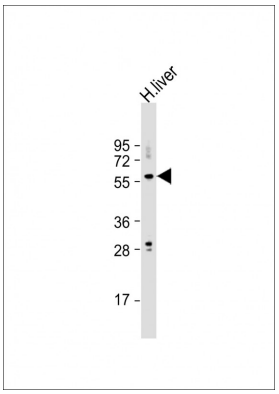
Background

Bmp5 is 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. 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.

References

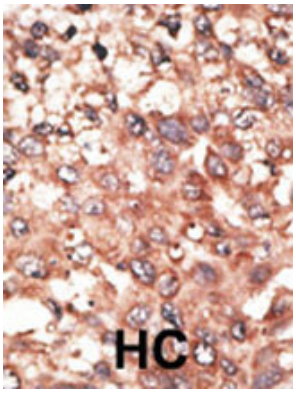
Luo, J., et al., Prostate 51(3):189-200 (2002).
Jin, Y., et al., Histol. Histopathol. 16(4):1013-1019 (2001).
Sakaue, M., et al., Biochem. Biophys. Res. Commun. 221(3):768-772 (1996).
Hahn, G.V., et al., Genomics 14(3):759-762 (1992).
Celeste, A.J., et al., Proc. Natl. Acad. Sci. U.S.A. 87(24):9843-9847 (1990).

Images



Anti-Bmp5 Antibody (N-term) at 1:1000 dilution + human liver lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 52 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



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