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Bmp6 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1717A

Product Information

Application	WB, IHC-P, E
Primary Accession	P22004
Other Accession	NP_001709
Reactivity	Human
Predicted	Mouse, Rat, Canine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	57226
Antigen Region	25-55

Additional Information

Gene ID	654
Other Names	Bone morphogenetic protein 6, BMP-6, VG-1-related protein, VG-1-R, VGR-1, BMP6, VGR
Target/Specificity	This Bmp6 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 25-55 amino acids from the N-terminal region of human Bmp6.
Dilution	WB~~1:1000 IHC-P~~1:100~500 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	Bmp6 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BMP6
Synonyms	VGR
Function	Growth factor of the TGF-beta superfamily that plays essential roles in many

developmental processes including cartilage and bone formation (PubMed:31019025). Also plays an important role in the regulation of HAMP/hepcidin expression and iron metabolism by acting as a ligand for hemojuvelin/HJV (PubMed:26582087). Also acts to promote expression of HAMP, potentially via the interaction with its receptor BMPR1A/ALK3 (PubMed:30097509, PubMed:31800957). Initiates the canonical BMP signaling cascade by associating with type I receptor ACVR1 and type II receptor ACVR2B (PubMed:18070108). In turn, ACVR1 propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target. Can also signal through non-canonical pathway such as TAZ-Hippo signaling cascade to modulate VEGF signaling by regulating VEGFR2 expression (PubMed:33021694).

Cellular Location Secreted.

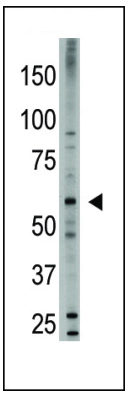
Background

The bone morphogenetic proteins (BMPs) are a family of secreted signaling molecules that can induce ectopic bone growth. Many BMPs are part of the transforming growth factor-beta (TGFB) superfamily. BMPs were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site. Based on its expression early in embryogenesis, Bmp6 has a proposed role in early development. In addition, the fact that BMP6 is closely related to BMP5 and BMP7 has lead to speculation of possible bone inductive activity.

References

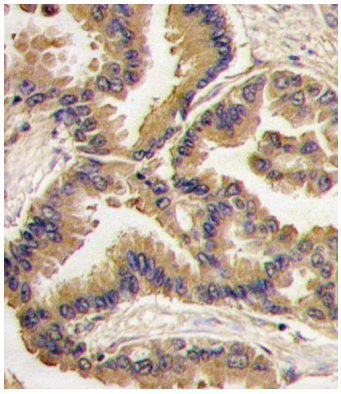
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Tamada, H., et al., Biochim. Biophys. Acta 1395(3):247-251 (1998).
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Images



The anti-Bmp6 (N-term) Pab (Cat. #AP1717a) is used in Western blot to detect Bmp6 in HL60 cell lysate.

Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with Bmp6 antibody (N-term)(Cat. #AP1717a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Citations

- Increased BMP6 levels in the brains of Alzheimer\'s disease patients and APP transgenic mice are accompanied by impaired neurogenesis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.