

# Bmp3 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1714a

## Product Information

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<b>Application</b>	WB, IHC-P, E
<b>Primary Accession</b>	<a href="#">P12645</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB1855-1856
<b>Calculated MW</b>	53372
<b>Antigen Region</b>	8-36

## Additional Information

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<b>Gene ID</b>	651
<b>Other Names</b>	Bone morphogenetic protein 3, BMP-3, Bone morphogenetic protein 3A, BMP-3A, Osteogenin, BMP3, BMP3A
<b>Target/Specificity</b>	This Bmp3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 8-36 amino acids from the N-terminal region of human Bmp3.
<b>Dilution</b>	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	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.
<b>Storage</b>	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.
<b>Precautions</b>	Bmp3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	BMP3
<b>Synonyms</b>	BMP3A
<b>Function</b>	Growth factor of the TGF-beta superfamily that plays an essential role in developmental process by inducing and patterning early skeletal formation

and by negatively regulating bone density. Antagonizes the ability of certain osteogenic BMPs to induce osteoprogenitor differentiation and ossification (PubMed:[11138004](#), PubMed:[15269709](#)). Initiates signaling cascades by associating with type II receptor ACVR2B to activate SMAD2-dependent and SMAD-independent signaling cascades including TAK1 and JNK pathways (PubMed:[31665064](#)).

<b>Cellular Location</b>	Secreted.
<b>Tissue Location</b>	Expressed in adult and fetal cartilage.

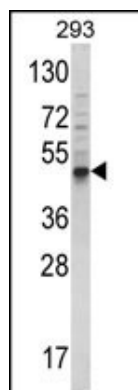
## Background

The BMPs belong to the TGF-Beta superfamily. BMPs stimulate the production of bone matrix proteins and thereby alter stromal cell and osteoclast proliferation, a key step in bone marrow development. In addition to promoting ectopic bone and cartilage development, BMPs regulate the growth, differentiation, chemotaxis, proliferation, and apoptosis of various cell types, including mesenchymal cells, epithelial cells, hematopoietic cells, and neuronal cells. BMPs also play a role in dorsal/ventral patterning. BMP3, highly expressed in lung, ovary and small intestine, participates in cartilage and bone formation. BMP3 and BMP2 genes map to conserved regions between human and mouse.

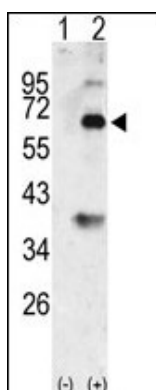
## References

Jin, Y., et al., *Histol. Histopathol.* 16(4):1013-1019 (2001).  
 Tabas, J.A., et al., *Genomics* 9(2):283-289 (1991).  
 Dickinson, M.E., et al., *Genomics* 6(3):505-520 (1990).  
 Wozney, J.M., et al., *Science* 242(4885):1528-1534 (1988).

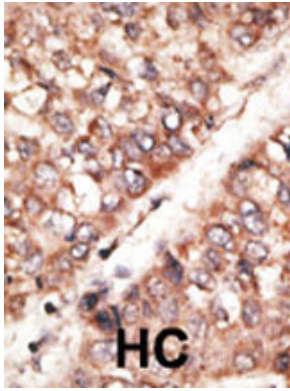
## Images



Western blot analysis of hBmp3-E23 (Cat. #AP1714a) in 293 cell line lysates (35ug/lane). BMP3 (arrow) was detected using the purified Pab.



Western blot analysis of Bmp3 (arrow) using rabbit polyclonal Bmp3 Antibody (N-term) (Cat.#AP1714a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the Bmp3 gene (Lane 2) (Origene Technologies).



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.

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