

BMP4 Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM1872b**Specification****BMP4 Antibody - Product Information**

Application	WB,E
Primary Accession	P12644
Other Accession	NP_570911.2 , NP_001193.2
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgM,K

BMP4 Antibody - Additional Information**Gene ID 652****Other Names**

Bone morphogenetic protein 4, BMP-4, Bone morphogenetic protein 2B, BMP-2B, BMP4, BMP2B, DVR4

Target/Specificity

This BMP4 monoclonal antibody is generated from mouse immunized with BMP4 recombinant protein.

Dilution

WB~~1:500~1000

Format

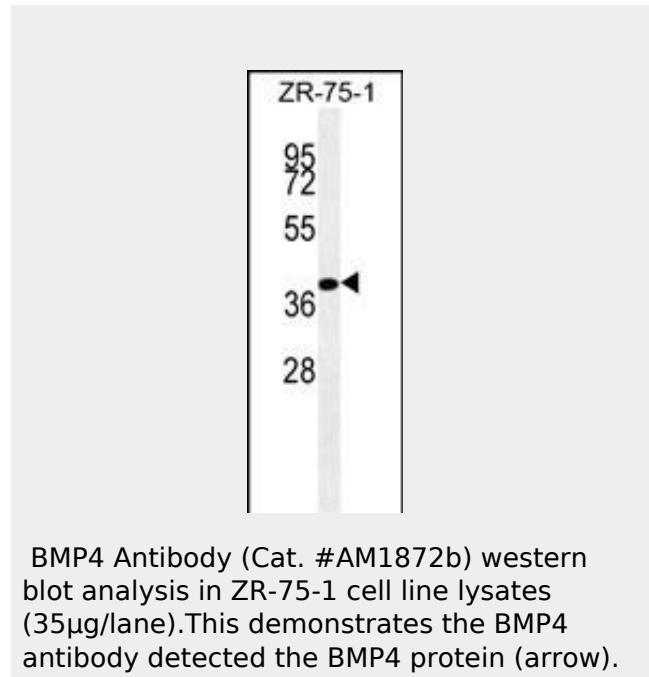
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Euglobin precipitation followed by dialysis against PBS.

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

BMP4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**BMP4 Antibody - Background**

The protein encoded by this gene 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. This particular family member plays an important role in the onset of endochondral bone formation in humans, and a reduction in expression has been associated with a variety of bone diseases, including the heritable disorder Fibrodysplasia Ossificans Progressiva. Alternative splicing in the 5' untranslated region of this gene has been described and three

BMP4 Antibody - Protein Information**Name** BMP4**Synonyms** BMP2B, DVR4**Function**

Growth factor of the TGF-beta superfamily that plays essential roles in many developmental processes, including neurogenesis, vascular development, angiogenesis and osteogenesis (PubMed:31363885). Acts in concert with PTHLH/PTHRP to stimulate ductal outgrowth during embryonic mammary development and to inhibit hair follicle induction (By similarity). Initiates the canonical BMP signaling cascade by associating with type I receptor BMPRI1A and type II receptor BMPRI2 (PubMed:25868050, PubMed:8006002). Once all three components are bound together in a complex at the cell surface, BMPRI2 phosphorylates and activates BMPRI1A. In turn, BMPRI1A propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes (PubMed:25868050, PubMed:29212066). Can also signal through non- canonical BMP pathways such as ERK/MAP kinase, PI3K/Akt, or SRC cascades (PubMed:31363885). For example, induces SRC phosphorylation which, in turn, activates VEGFR2, leading to an angiogenic response (PubMed:31363885).

Cellular Location

Secreted, extracellular space, extracellular matrix

Tissue Location

Expressed in the lung and lower levels seen

variants are described, all encoding an identical protein.

BMP4 Antibody - References

Kupfer, S.S., et al. Gastroenterology 139(5):1677-1685(2010)
Kim, H.N., et al. J. Hum. Genet. 55(10):681-690(2010)
Nikopensius, T., et al. Birth Defects Res. Part A Clin. Mol. Teratol. 88(9):748-756(2010)
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :
Johnatty, S.E., et al. PLoS Genet. 6 (7), E1001016 (2010) :

in the kidney. Present also in normal and neoplastic prostate tissues, and prostate cancer cell lines

BMP4 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](#)