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# BMP4 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI14914

## Product Information

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| **Application** | WB |
| **Primary Accession** | P12644 |
| **Other Accession** | NM_001202, NP_001193 |
| **Reactivity** | Human, Mouse, Rat, Rabbit, Pig, Goat, Dog, Guinea Pig, Horse, Bovine, Sheep |
| **Predicted** | Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Chicken, Goat, Dog, Guinea Pig, Horse, Bovine, Sheep |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 46555 |

## Additional Information

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| **Gene ID** | 652 |
| **Alias Symbol** | BMP2B, BMP2B1, MCOPS6, OFC11, ZYME |
| **Other Names** | Bone morphogenetic protein 4, BMP-4, Bone morphogenetic protein 2B, BMP-2B, BMP4, BMP2B, DVR4 |
| **Format** | Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose. |
| **Reconstitution & Storage** | Add 50 ul of distilled water. Final anti-BMP4 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles. |
| **Precautions** | BMP4 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | BMP4 ( HGNC:1071) |
| **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 BMPR1A and type II receptor BMPR2 (PubMed:25868050, PubMed:8006002). Once all three components are bound together in a complex at the cell surface, BMPR2 phosphorylates and activates BMPR1A. In turn, BMPR1A propagates |

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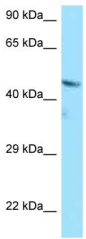
| | signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes (PubMed:25868050, PubMed:29212066). Positively regulates the expression of odontogenic development regulator MSX1 via inducing the IPO7- mediated import of SMAD1 to the nucleus (By similarity). Required for MSX1-mediated mesenchymal molar tooth bud development beyond the bud stage, via promoting Wnt signaling (By similarity). Acts as a positive regulator of odontoblast differentiation during mesenchymal tooth germ formation, expression is repressed during the bell stage by MSX1- mediated inhibition of CTNNB1 signaling (By similarity). Able to induce its own expression in dental mesenchymal cells and also in the neighboring dental epithelial cells via an MSX1-mediated pathway (By similarity). 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 in the kidney. Present also in normal and neoplastic prostate tissues, and prostate cancer cell lines |

## References


Wozney J.M.,et al.Science 242:1528-1534(1988).
Shore E.M.,et al.Calcif. Tissue Int. 63:221-229(1998).
Oida S.,et al.DNA Seq. 5:273-275(1995).
Yanagita M.,et al.Biochem. Biophys. Res. Commun. 316:490-500(2004).
Felder B.,et al.Eur. J. Hum. Genet. 10:753-756(2002).


## Images




WB Suggested Anti-BMP4 Antibody Titration: 1.0 µg/ml
Positive Control: A549 Whole Cell