



Anti-BMP4 monoclonal antibody, clone 77209 [Biotin] (DCABY-4311)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description

BMPs are secreted signaling molecules that comprise a subfamily of the TGF-beta superfamily and were originally identified as regulators of cartilage and bone formation. There are at least 20 structurally and functionally related BMPs, most of which play roles in embryogenesis and morphogenesis of various tissues and organs. Biologically active BMPs are usually homodimers containing a characteristic cysteine knot structure. Heterodimers, BMP-2/BMP-7 and BMP-4/BMP-7 have also been suggested to exist and function in vivo. They are more potent inducers of bone formation than their respective homodimers. In addition, heterodimers, but not homodimers, are ventral mesoderm inducers. Heterodimer activity may be mediated by a different or additional receptor subtype. Decapentaplegic (Dpp) is one of at least five TGF-beta superfamily ligands identified in the Drosophila genome. Dpp, a functional ortholog of mammalian BMP-2 and BMP-4, is a morphogen and plays an essential role in Drosophila development. Dpp regulates embryonic dorsal-ventral polarity and is required for gut morphogenesis and outgrowth and patterning of imaginal disks.

Specificity	Detects human BMP-4 in direct ELISAs and Western blots. Does not cross-react with recombinant human BMP-2, -3, -5, -6, or -7.
Immunogen	Mouse myeloma cell line NS0-derived recombinant human BMP-4. Ser293-Arg408 Accession Number P12644
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human
Clone	77209
Purification	Protein A or G purified from hybridoma culture supernatant

Conjugate	Biotin
Applications	Western Blot, ELISA Detection (Matched Pair)
Format	Liquid
Size	250 µg
Buffer	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein.
Preservative	None
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

GENE INFORMATION

Gene Name	BMP4 bone morphogenetic protein 4 [Homo sapiens (human)]
Official Symbol	BMP4
Synonyms	BMP4; bone morphogenetic protein 4; ZYME; BMP2B; OFC11; BMP2B1; MCOPS6; BMP-4; BMP-2B; bone morphogenetic protein 2B;
Entrez Gene ID	652
Protein Refseq	NP_001193
UniProt ID	P12644
Chromosome Location	14q22-q23
Pathway	Adipogenesis; Basal cell carcinoma; Cardiac Progenitor Differentiation; Elastic fibre formation; Extracellular matrix organization; Glypican 3 network; Heart Development; Hedgehog signaling pathway;
Function	BMP receptor binding; chemoattractant activity; cytokine activity; growth factor activity; heparin binding; protein binding;