



Anti-BMP2 monoclonal antibody, clone 200340 [Biotin] (DCABY-4272)

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-2 in ELISAs. In sandwich immunoassays, less than 10% cross-reactivity with recombinant human (rh) BMP-4, rhBMP-2/BMP-7 heterodimer, and no cross-reactivity with rhBMP-3, -5, -6, rhTGF-beta 1, rhTGF-beta 2, or rhTGF-beta 3 is observed.
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human BMP-2. Gln283-Cys296 Accession Number P12643
Isotype	IgG1
Source/Host	Mouse
Species Reactivity	Human
Clone	200340
Purification	Protein A or G purified from hybridoma culture supernatant

Conjugate	Biotin
Applications	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	BMP2 bone morphogenetic protein 2 [Homo sapiens (human)]
Official Symbol	BMP2
Synonyms	BMP2; bone morphogenetic protein 2; BDA2; BMP2A; BMP-2A; bone morphogenetic protein 2A;
Entrez Gene ID	650
Protein Refseq	NP_001191
UniProt ID	C8C060
Chromosome Location	20p12
Pathway	Adipogenesis; BDNF signaling pathway; BMP signalling and regulation; Basal cell carcinoma; Cytokine-cytokine receptor interaction; Elastic fibre formation; Extracellular matrix organization; Heart Development;
Function	BMP receptor binding; SMAD binding; cytokine activity; growth factor activity; phosphatase activator activity; protein binding; protein heterodimerization activity; receptor binding; retinol dehydrogenase activity;