



# Anti-BMP7 monoclonal antibody, clone 275424 (DCABY-4068)

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

## PRODUCT INFORMATION

<b>Antigen Description</b>	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.
<b>Specificity</b>	Detects human BMP-7 in ELISAs. In ELISAs, this antibody shows approximately 25-50% cross-reactivity with recombinant human (rh) BMP-6 and no cross-reactivity with rhBMP-2, -3, -4, -5, or -8.
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human BMP-7. Arg292-His431 Accession Number P18075
<b>Isotype</b>	IgG1
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Human
<b>Clone</b>	275424
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant

<b>Conjugate</b>	Unconjugated
<b>Applications</b>	Immunohistochemistry, ELISA Capture (Matched Pair), Neutralization
<b>Format</b>	Liquid
<b>Size</b>	500 µg
<b>Buffer</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.
<b>Preservative</b>	None
<b>Storage</b>	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 from date of receipt, 2 to 8 °C, reconstituted. 6 months from date of receipt, -20 to -70 °C, reconstituted.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">BMP7 bone morphogenetic protein 7 [ Homo sapiens (human) ]</a>
<b>Official Symbol</b>	BMP7
<b>Synonyms</b>	BMP7; bone morphogenetic protein 7; OP-1; osteogenic protein 1;
<b>Entrez Gene ID</b>	<a href="#">655</a>
<b>Protein Refseq</b>	<a href="#">NP_001710</a>
<b>UniProt ID</b>	<a href="#">A8K571</a>
<b>Chromosome Location</b>	20q13
<b>Pathway</b>	ALK2 signaling events; BMP receptor signaling; Cytokine-cytokine receptor interaction; Elastic fibre formation; Endochondral Ossification; Extracellular matrix organization; Hippo signaling pathway; Molecules associated with elastic fibres;
<b>Function</b>	cytokine activity; growth factor activity; heparin binding; protein binding; contributes_to protein binding;