

Recombinant Human Bone Morphogenetic Protein 5

Cat. No. BMP5-26H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human BMP5 was expressed in NSO Cells.

Species Human

Source Mammalian Cells

Description This gene encodes 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. These proteins are synthesized as prepropeptides, cleaved, and then processed into dimeric proteins. This protein may act as an important signaling molecule within the trabecular meshwork and optic nerve head, and may play a potential role in glaucoma pathogenesis. This gene is differentially regulated during the formation of various tumors.

Molecular Mass The predicted molecular weight of Recombinant Human BMP-5 is Mr 19 kDa (monomer) with the extra 34 amino acid residues from BMP-2, and 16 kDa (monomer) on mature BMP-5. However, the actual molecular weight as observed by migration on SDS Page is Mr 20 and 25 kDa under reducing conditions.

State of Matter Lyophilized

Formulation This recombinant protein was lyophilized from a 0.2 µm filtered solution in 35% acetonitrile (CH₃CN) and 0.1% trifluoroacetic acid (TFA) with trehalose.

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Purity	>95% by SDS-PAGE and analyzed by silver stain.
Endotoxin	<1.0 EU/g as determined by the LAL method
Amino Acid Sequence	(Human BMP-2 propeptide; Ser249-Arg282) nqnrnkss shqdssrmss vgdyntseqk qackkhelyv sfrdlgwqdw iiapegyaaf ycdgecsfpl nahmnatnha ivqtlvhlmf pdhvpkpcca ptklnaisvl yfddssnvil kkyrnmvvrsgcgch
Storage	This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles.
OfficialSymbol	BMP5

GENE INFORMATION

Gene Name	BMP5 bone morphogenetic protein 5 [Homo sapiens]
Synonyms	BMP5; bone morphogenetic protein 5; MGC34244; BMP-5; OTTHUMP00000016650
Gene ID	653
mRNA Refseq	NM_021073
Protein Refseq	NP_066551
MIM	112265
UniProt ID	P22003

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Chromosome Location	6p12.1
Pathway	TGF-beta signaling pathway
Function	BMP receptor binding; cytokine activity; growth factor activity

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