

Recombinant Mouse Bone Morphogenetic Protein 6

Cat. No. Bmp6-27M **Lot. No.** (See product label)

SPECIFICATION

Product Overview Recombinant mouse bone morphogenetic protein-6 is expressed in *NSO cells*. An osteopenia protein belonging to the transforming growth factor- β (TGF- β) superfamily. BMP-6 has been shown to strongly induce phosphorylation and nuclear accumulation of Smad5. BMPs have also been shown to be involved in embryogenesis and morphogenesis of cells of osteoplastic lineage.

Species Mouse

Source Mammalian Cells

Description The bone morphogenetic proteins (BMPs) are a family of secreted signaling molecules that can induce ectopic bone growth. BMPs are part of the transforming growth factor-beta (TGFB) superfamily. BMPs were originally identified by an ability of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskeletal site. Based on its expression early in embryogenesis, the BMP encoded by this gene has a proposed role in early development. In addition, the fact that this BMP is closely related to BMP5 and BMP7 has led to speculation of possible bone inductive activity.

Form Lyophilized.

Formulation Lyophilized from a 0.2 μ m filtered solution of 35% ACN, 0.1% TFA, 50 μ g BSA/ μ g BMP-6.

Molar Mass 48000Da.

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Biological Activity	ED50 = 50-150 ng/ml based on the ability to induce alkaline phosphatase expression in MC3T3-E1 Cells.
Unit Definition	One unit is defined as the amount of enzyme that will phosphorylate 1.0 nmol GST-c-Jun (1-79) Substrate per min at 30°C, pH 7.5.
Purity	≥95% by SDS-PAGE.
Storage	≤ -70°C. Ship: Dry Ice Only.

GENE INFORMATION

Gene Name	Bmp6 bone morphogenetic protein 6 [Mus musculus]
Synonyms	Bmp6; bone morphogenetic protein 6; BMP-6; VG-1-related protein; D13Wsu115e; Vgr1
Gene ID	12161
mRNA Refseq	NM_007556
Protein Refseq	NP_031582
UniProt ID	P20722
Chromosome Location	13 20.0 cM
Pathway	Cytokine-cytokine receptor interaction; Hedgehog signaling pathway; TGF-beta signaling pathway

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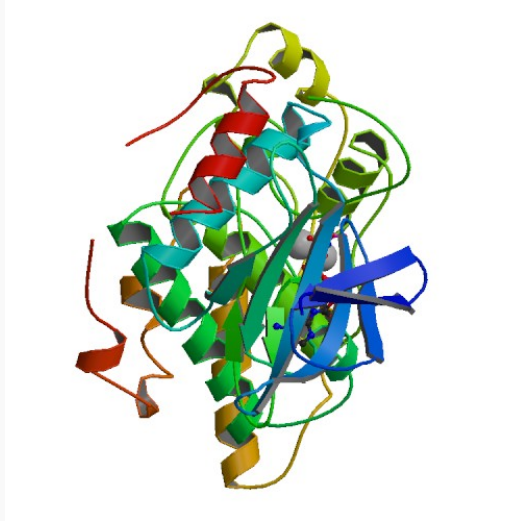
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Function

BMP receptor binding; cytokine activity; growth factor activity; protein binding; protein heterodimerization activity

PDB rendering based on 1jnk.



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