

Bioactive

BMP4 (Human) Recombinant Protein

Catalog # P3598

Size 10 ug

Specification

Product Description	Human BMP4 (P12644, 292 a.a. - 408 a.a.) partial recombinant protein expressed in <i>Escherichia coli</i> .
Sequence	SPKHHSQRARKKNKNCRRHSLYVDFSDVGWNDWVAPPGYQAFYCHGDCPFPLADHLNSTNHAI VQTLVNSVNSSIPKACCVPTELSAISMLYLDEYDKVVLKNYQEMVVEGCGCR
Host	Escherichia coli
Theoretical MW (kDa)	13
Form	Lyophilized
Preparation Method	<i>Escherichia coli</i> expression system
Purification	Ion exchange column and HPLC reverse phase column
Purity	> 90% by SDS-PAGE and HPLC
Endotoxin Level	< 0.1 ng/ug (1 EU/ug)
Activity	The ED ₅₀ was determined by the ability to induce alkaline phosphatase production in mouse ATDC5 chondrogenic and was found to be in the range of 0.1-0.2 ug/mL.
Storage Buffer	Lyophilized from 20 mM Na ₂ CO ₃ , pH 9
Storage Instruction	Store at -20°C on dry atmosphere for 2 years. After reconstitution with deionized water, store at 4°C for 1 month or store at -20°C for 6 months. Aliquot to avoid repeated freezing and thawing.

Applications

- Functional Study
- SDS-PAGE

Gene Info — BMP4

Entrez GeneID	652
Protein Accession#	P12644
Gene Name	BMP4
Gene Alias	BMP2B, BMP2B1, MCOPS6, ZYME
Gene Description	bone morphogenetic protein 4
Omim ID	112262
Gene Ontology	Hyperlink

Gene Summary

The protein encoded by this gene is 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. This particular family member plays an important role in the onset of endochondral bone formation in humans, and a reduction in expression has been associated with a variety of bone diseases, including the heritable disorder Fibrodysplasia Ossificans Progressiva. Alternative splicing in the 5' untranslated region of this gene has been described and three variants are described, all encoding an identical protein. [provided by RefSeq]

Other Designations bone morphogenetic protein 2B

Pathway

- [Basal cell carcinoma](#)
- [Cytokine-cytokine receptor interaction](#)
- [Hedgehog signaling pathway](#)
- [Pathways in cancer](#)
- [TGF-beta signaling pathway](#)

Disease

- [Alzheimer disease](#)
- [Anemia](#)

- [Bone Diseases](#)
- [Calcinosis](#)
- [Cardiovascular Diseases](#)
- [Cleft Lip](#)
- [Cleft Palate](#)
- [Coloboma](#)
- [Colorectal Neoplasms](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Disease Susceptibility](#)
- [Edema](#)
- [Gaucher disease](#)
- [Genetic Predisposition to Disease](#)
- [Hemochromatosis](#)
- [Hypospadias](#)
- [Kidney Failure](#)
- [Malignant melanoma](#)
- [Melanoma](#)
- [Metabolic Syndrome X](#)
- [Microphthalmos](#)
- [Neoplasms](#)
- [Neural Tube Defects](#)
- [Obesity](#)
- [Osteoporosis](#)
- [Ovarian Failure](#)

- [Ovarian Neoplasms](#)
- [Polycystic Ovary Syndrome](#)
- [Prenatal Exposure Delayed Effects](#)
- [Puberty](#)
- [Skin Neoplasms](#)
- [Thrombophilia](#)
- [Tobacco Use Disorder](#)