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 *Escherichia coli*.
Sequence	SPKHHSQRARKKNKNCRRHSLYVDFSDVGWNDWIVAPPGYQAFYCHGDCPFPLADHLNSTNHAI VQTLVNSVNSSIPKACCVPTELSAISMLYLDEYDKVVLKNYQEMVVEGCGCR
Host	Escherichia coli
Theoretical MW (kDa)	13
Form	Lyophilized
Preparation Method	*Escherichia coli* 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_2CO_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

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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 a bility of demineralized bone extract to induce endochondral osteogenesis in vivo in an extraskelet al site. This particular family member plays an important role in the onset of endochondral bone fo rmation in humans, and a reduction in expression has been associated with a variety of bone dise ases, 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

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- 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

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- Ovarian Neoplasms
- Polycystic Ovary Syndrome
- Prenatal Exposure Delayed Effects
- Puberty
- Skin Neoplasms
- Thrombophilia
- Tobacco Use Disorder

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