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## Product Data Sheet

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Product Name: BMP4 Human, CHO

Cat. No.: GP20104

Batch No.: 1

**Product Data**

Purity	>98%	Source	CHO cells.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	BMP4; ZYME; BMP2B; BMP2B1.		
Amino Acid Sequence	SPKHHSQRAR KKNKNCRRHS LYVDFSDVGW NDWIVAPPGY QAFYCHGDCP FPLADHLNST NHAI VQT LVN SVNSSIPKAC CVPTELSAIS MLYLDEYDKV VLKNYQEMVV EGCGCR.		
Solubility	It is recommended to reconstitute the lyophilized BMP4 in sterile 18MΩ-cm H <sub>2</sub> O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The protein was lyophilized from a sterile (0.2μm) filtered solution containing 0.1% Trifluoroacetic Acid (TFA).		

**Introduction**

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 extraskelatal 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.

**Biological Activity**

The ED<sub>50</sub>, as calculated by Alkaline phosphatase activity induced in ATDC-5 cells is less

**Caution: Product has not been fully validated for medical applications. For research use only.**

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than 15ng/ml corresponding to a specific activity which is  $> 6.7 \times 10^4$  units/mg.

### Stability

Lyophilized BMP4 although stable at room temperature for 3 weeks, should be stored desiccated below  $-18^{\circ}\text{C}$ . Upon reconstitution BMP4 should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-18^{\circ}\text{C}$ . Please prevent freeze-thaw cycles.

### Background

Bone Morphogenetic protein-4 Active Human Recombinant produced in CHO cells is a glycosylated homodimer chain containing 2x116 amino acids and having a total molecular mass of 26.2kDa. BMP4 is purified by proprietary chromatographic techniques.

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