Technical Data Sheet

Recombinant Human Bone Morphogenetic Protein-4 (rHu BMP-4)

Human Bone Morphogenetic Protein 4 (BMP-4)

Human BMP-4 is one of at least 15 structurally and functionally related BMPs, which are members of the transforming growth factor β (TGF-β) superfamily. BMPs were originally identified as protein regulators of cartilage and bone formation. However, they havesince been shown to be involved in embryogenesis and morphogenesis of various tissues and organs. BMPs have also been shown to regulate the growth, differentiation, chemotaxis and apoptosis of various cell types, including mesenchymal cells, epithelial cells, hematopoietic cells and neuronal cells. BMP-4 is synthesized as large precursor molecules which are cleaved by proteolytic enzymes. The active form can consist of a dimer of two identical proteins or a heterodimer of two related bone morphogenetic proteins.

Catalog Number:	RC219-15
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 13 kDa, a monomeric, non-glycosylated polypeptide chain containing 116 amino acids.
Quantity:	2ug/10ug/1mg
Purity:	>95% by SDS-PAGE and HPLC analyses.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2μm filtered concentrated (1mg/ml) solution in 20mM Na2CO3 buffer, pH 9.0.
Endotoxin:	Less than 1EU/μg of rHuBMP-4 as determined by LAL method.
Applications:	1. Molecular standard (Western, ELISA) in studying secreted BMP-4; 2. Preparing antibodies for BMP-4 monomer; 3. Molecule standard in detecting secreted BMP-4 in reduced SDS-PAGE .
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in appropriate buffered solutions.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

Usage: This material is offered by Bio Basic Inc. for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

20 Konrad Cres, Markham Ontario L3R 8T4 Canada
Tel: (905) 474 4493, (800) 313 7224 Fax: (905) 474 5794
Email: order@biobasic.com Web: www.biobasic.com