Rev. 0

ScienCell™ Research Laboratories

Recombinant Human Bone Morphogenetic Protein 4 (rhBMP-4)

Catalog #108-04

Product Description

Bone Morphogenetic Proteins (BMPs) belong to the TGF family and have been recognized for their broader roles in embryogenesis and the morphogenesis of various tissues and organs. The BMPs influence numerous cellular processes, including growth, differentiation, chemotaxis, and apoptosis, across a range of cell types such as mesenchymal, epithelial, hematopoietic, and neuronal cells. Reduced expression of BMP-4 has been linked to several bone-related disorders, including Fibrodysplasia Ossificans Progressiva. BMP-4 is synthesized as a large precursor protein that undergoes cleavage by proteolytic enzymes to produce its active form, which functions either as a homodimer or heterodimer. Recombinant Human BMP-4 consists of two identical amino acid polypeptide chains connected by disulfide bond and has a molecular weight of 27 kDa

Specifications and Quality Control

Synonyms:	BMP4, ZYME, BMP2B, OFC11, BMP2B1, MCOPS6
AA Sequence:	SPKHHSQRAR KKNKNCRRHS LYVDFSDVGW NDWIVAPPGY QAFYCHGDCP FPLADHLNST NHAIVQTLVN SVNSSIPKAC CVPTELSAIS MLYLDEYDKV VLKNYQEMVV EGCGCR
Source:	mammalian cell
Molecular Weight:	27.0 kDa, disulfide bond linked non-glycosylated polypeptide chains containing two 116 amino acids

Quality Control

Purity	> 95%
Physical Appearance:	White lyophilized powder.
Endotoxin:	<0.1 ng/µg of protein (<1 EU/µg)

Formulation

Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in Tris-HCl at pH8.0 and 150 mM NaCl with dextran as protectant.

Rev. 0

Reconstitution
Reconstitute in sterile distilled water or 1x PBS containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.

Shipping and Storage
Gel pack. Upon receipt, store at -20ºC after receiving. Upon reconstitution, store at 2-8ºC for up to one week. For maximal stability, aliquot and store at -20ºC. Avoid repeated freeze/ thaw cycles.

Usage
rhBMP4 is for research use only. It is not approved for human or animal use, or for application in clinical or *in vitro* diagnostic procedures.