Recombinant Human BMP4

Cat No:HR2R1201

For research use only

Overview

Quantity	1.0 ?g
Gene Symbol	BMP4
Gene ID	652
Accession	P12644
Alternative Name	BMP-4, BMP-2B, DVR4 Recombinant Human Bone Morphogenetic Protein 4 (BMP4)
Species	Human
Source	E. coli
Description	BMPs are proteins that act to induce the differentiation of mesenchymal-type cells into chondrocytes and osteoblasts before initiating bone formation. They not only promote the differentiation of cartilage-forming cells and bone-forming cells near sites of fractures but also at ectopic locations. Some BMPs act directly on osteoblasts and promote their maturation while at the same time suppressing myogenous differentiation. Other BMPs promote the conversion of typical fibroblasts into chondrocytes and are capable also of inducing the expression of an osteoblast phenotype in non-osteogenic cell types. Intracellular signalling following engagement of receptors for some BMP proteins has been shown to involve the action of SMAD proteins. BMP4 and BMP7 are also known to be involved in the differentiation of sympathetic neurons. BMP4 is a disulfide linked homodimer that is expressed majorly in the lungs but also found in the kidneys, normal and neoplastic prostate tissues, and prostate cancer cell lines.
Functions	The ED(50) was determined by its 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.
Formulation	Lyophilized from a 0.2 ?m filtered solution in 20 mM Sodium carbonate (pH 9).
Solubility	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Appearance	Lyophilized Powder
Molecular Weight	13
Purity	>95% as determined by SDS-PAGE
Concentration	<1.0 EU/?g of recombinant protein as determined by the LAL method.
Shipping Condition	Ambient Temperature

Storage Condition	The lyophilized protein is stable for at least one year from date of receipt at -70?C. Upon reconstitution, this cytokine can be stored in working aliquots at 2? - 8?C for one month, or at -20?C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.