Recombinant Human BMP-4

Catalog No: #70804

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Description

Product Name	Recombinant Human BMP-4
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	> 95 % by SDS-PAGE and HPLC analyses.
Species Reactivity	Hu
Target Name	rHu BMP-4
Other Names	BMP-2B
Accession No.	accession:P12644 GeneID:652
Uniprot	P12644
GeneID	652;
Calculated MW	Approximately 13.3 kDa, a mono
SDS-PAGE MW	Sterile Filtered White lyophil
Target Sequence	MSPKHHSQRA RKKNKNCRRH SLYVDFSDVG WNDWIVAPPG YQAFYCHGDC PFPLADHLNS TNHAIVQTLV NSVNSSIPKA CCVPTELSAI SMLYLDEYDK VVLKNYQEMV VEGCGCR
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 50 mM Na2CO3, 5 mM DTT, pH 11.0.
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.

Background

Bone Morphogenetic Protein 4 is one of the BMPs, some of which belong to the TGF-beta superfamily (BMP2-7). There are more than thirteen BMPs have been discovered nowadays and they are involved in inducing cartilage and bone formation. BMP-4 is expressed in the lung and lower levels seen in the kidney. It also presents in normal and neoplastic prostate tissues, and prostate cancer cell lines. It regulates the formation of teeth, limbs and bone from mesoderm. Furthermore it also plays a role in fracture repair. BMP-4 signals through tetrameric complexes composed of type I and type II receptors and regulates it function by interaction with multiple proteins and glycosaminoglycans. The human BMP-4 shares 98 % sequence indentity with mouse BMP-4. Reduced expression of BMP-4 is associated with a number of bone diseases, including the heritable disorder Fibrodysplasia Ossificans Progressiva.

References

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3. Bessa PC, Cerqueira MT, Rada T, et al. 2009. Protein Expr Purif, 63: 89-94.
4. Kawakami T, Kumasaka M, Kato M, et al. 2011. J Dermatol Sci, 63: 66-9.