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BMP-3A

Catalog # PVGS1350

Product Information

Primary Accession	P55107
Species	Human
Sequence	MQWDEPRVCS RRYLKVDFAD IGWNEWIISP KSFDAYYCAG ACEFPMPKIV RPSNHATIQS IVRAVGIIPG IPEPCCVPDK MNSLGVLFLD ENRNVVLKVY PNMSVDTCAC R
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Endotoxin Level	
Formulation	Lyophilized after extensive dialysis against 4mM HCl.
Reconstitution	Reconstituted in 4mM HCl at 100 □g/mL.

Additional Information

Gene ID	2662
Other Names	Growth/differentiation factor 10, GDF-10, Bone morphogenetic protein 3B, BMP-3B, Bone-inducing protein, BIP, GDF10 (HGNC:4215), BMP3B
Target Background	Bone Morphogenetic Protein-3B (BMP-3B) , also known as Growth/Differentiation Factor 10 (GDF-10), is a cytokine belonging to the Transforming Growth Factor β (TGF-β) superfamily. BMP-3B contains the cystine knot motif shared by other TGF-β family members. BMP-3B was originally identified by PCR based on the BMP-3 sequence, and shares 83% identity with BMP-3. BMP-3B and BMP-2 act as mutual antagonists, as they compete for the availability of signaling protein Smad4. In vivo, BMP-3B is highly expressed in brain, lungs, and bone tissues. The functions of BMP-3B include acting as a dorsaling factor in head development, inhibition of adipogenesis in adipocytes, and induction of bone formation. BMP-3B is down-regulated in lung cancer patient samples, indicating its potential antitumor activity. Recombinant human Bone Morphogenetic Protein-3B (rhBMP-3B) produced in E. coli is a disulfide-linked homodimer containing two non-glycosylated polypeptide chains of 111 amino acids each. rhBMP-3B has a molecular mass of 25.1 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at .

Protein Information

Name	GDF10 (HGNC:4215)

Synonyms	BMP3B
Function	Growth factor involved in osteogenesis and adipogenesis. Plays an inhibitory role in the process of osteoblast differentiation via SMAD2/3 pathway. Plays an inhibitory role in the process of adipogenesis.
Cellular Location	Secreted {ECO:0000250|UniProtKB:P97737}.
Tissue Location	Expressed in femur, brain, lung, skeletal muscle, pancreas and testis.