## Recombinant Human BMP-5 protein(His Tag)

Catalog Number: PKSH034131



Description	
Species	Human
Mol Mass	16.6 kDa
Accession	P22003
Bio-activity	Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The
	$ED_{50}$ for this effect is <0.17 µg/mL.
Properties	
Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20 mM sodium citrate, 0.2 M NaCl, pH 3.5.
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Note: Centrifuge before opening to ensure complete recovery of vial contents.

## Background

Growth factor of the TGF-beta superfamily that plays essential roles in many developmental processes, including cartilage and bone formation or neurogenesis. Initiates the canonical BMP signaling cascade by associating with type I receptor BMPR1A and type II receptor BMPR. In turn, BMPR1A propagates signal by phosphorylating SMAD1/5/8 that travel to the nucleus and act as activators and repressors of transcription of target genes.

Can also signal through non-canonical pathway such as MAPK p38 signaling cascade to promote chondrogenic differentiation.