

Recombinant Human BMP-5 protein(His Tag)

Catalog Number: PKSH034131

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

Description

Species	Human
Source	E.coli-derived Human BMP-5 protein Ala 317-His 454, with an C-terminal His
Calculated MW	16.6 kDa
Observed MW	17 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°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.

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 BMPRII and type II receptor BMPRI. In turn, BMPRII 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.