

# Recombinant Human BMP-5 protein(His Tag)

Catalog Number:PKSH034131



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

## Description

<b>Synonyms</b>	BMP-5
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Ala 317-His 454
<b>Accession</b>	P22003
<b>Calculated Molecular Weight</b>	16.6 kDa
<b>Observed molecular weight</b>	17 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Measure by its ability to induce alkaline phosphatase production by ATDC5 cells. The ED <sub>50</sub> for this effect is < 0.17 µg/mL.

## Properties

<b>Purity</b>	> 98 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 0.1 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 20 mM sodium citrate, 0.2 M NaCl, pH 3.5. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	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 BMPRI1A and type II receptor BMPRII. In turn, BMPRI1A 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.

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