

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

**Catalog Number:** PKSH034131

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

### Description

|                      |   |
|----------------------|---|
| <b>Species</b>       | Human   |
| <b>Source</b>        | E.coli-derived Human BMP-5 protein Ala 317-His 454, with an C-terminal His  |
| <b>Calculated MW</b> | 16.6 kDa  |
| <b>Observed MW</b>   | 17 kDa  |
| <b>Accession</b>     | P22003  |
| <b>Bio-activity</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.<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>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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