

# Recombinant Human GDF-5/BMP-14 Protein

Catalog No.: RP00379 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	8200	P43026

### Tags

No tag

### Synonyms

GDF5;BDA1C;BMP-14;BMP14;CDMP1;LAP-4;LAP4;OS5;SYM1B;SYNS2

## Product Information

Source	Purification
<i>E. coli</i>	> 95% by SDS-PAGE.

### Endotoxin

< 1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.2 μm filtered solution of 4 mM HCl. Contact us for customized product form or formulation.

### Reconstitution

Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water.

## Background

This protein belongs a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer. This protein regulates the development of numerous tissue and cell types, including cartilage, joints, brown fat, teeth, and the growth of neuronal axons and dendrites. Mutations in this gene are associated with acromesomelic dysplasia, brachydactyly, chondrodysplasia, multiple synostoses syndrome, proximal symphalangism, and susceptibility to osteoarthritis.

## Basic Information

### Description

Recombinant Human GDF-5/BMP-14 Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Ala382-Arg501) of human GDF-5/BMP-14 (Accession #P43026) fused with an initial Met at the N-terminus.

### Bio-Activity

Measured by its ability to induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED<sub>50</sub> for this effect is 0.2-1.2 μg/mL.

### Storage

Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Contact

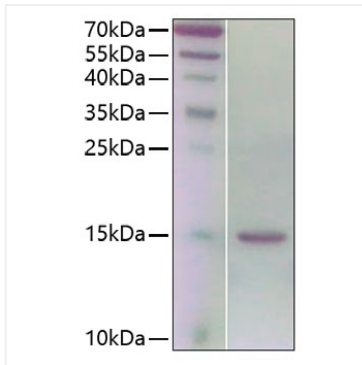
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## Validation Data

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Recombinant protein Human GDF-5/BMP-14 was determined by SDS-PAGE under reducing conditions with Coomassie Blue, showing a band at 15 kDa.