

Recombinant Human GDF-5/BMP-14 Protein

Catalog No.: RP00379

Sequence Information

Species Gene ID

Human 8200

Swiss Prot Tags

P43026 No tag

Synonyms

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

Product Information

Source Purification

E. coli ≥ 95 % as determined by SDS-PAGE.

Calculated MWObserved MW

13.7 kDa 15 kDa

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

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 μg/ml. Dissolve the lyophilized protein in 4 mM HCl. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Background

This protein belongs to a secreted ligand of the TGF-β (transforming growth factor-β) superfamily of proteins. Ligands of this family bind various TGF-β 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.

Activity

Measured by its ability to induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED₅₀ for this effect is 0.2-1.2 μg/mL.

Shipping

Lyophilized proteins are shipped at ambient temperature. Liquid proteins are shipped at frozen temperature with dry ice. Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

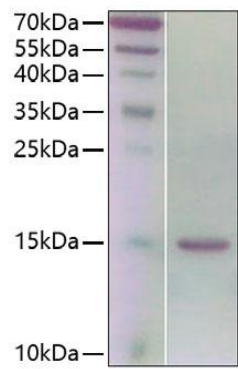
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Validation Data



Recombinant Human GDF-5/BMP-14 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.