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

Calculated MW	Observed 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 100μg/ml. Dissolve the lyophilized protein in 4mM HCl. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

Contact

400-999-6126

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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_{50} for this effect is 0.2-1.2 μg/mL.

Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

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

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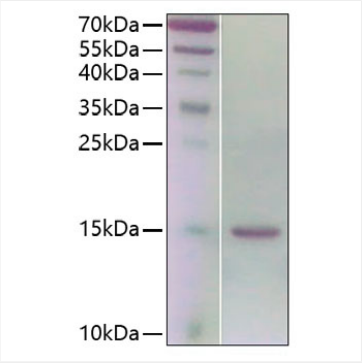
Validation Data



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

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