GDF-5 (BMP-14/CDMP-1) Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: BMP-14, Cartilage-Derived Morphogenetic Protein-1 (CDMP-1)

Cat. No.:

RBG10161010	(10 µg)
RBG10161050	(50 µg)
RBG10161100	(100 µg)

Description

GDF-5 is expressed in long bones during embryonic development and postnatally in articular cartilage. Mutations in the GDF-5 gene have been implicated in Hunter-Thompson type dwarfism and in Grebe Syndrome, which is characterized by short stature, extra digits, and short and deformed extremities. The mature and functional form of GDF-5 is a homodimer of two 120 amino-acid polypeptide chain (monomers) linked by a single disulfide bond. Each GDF-5 monomer is expressed as the C-terminal part of a precursor polypeptide, which also contains a 27 amino acid signal peptide and a 354 amino acid propeptide. This precursor undergoes intracellular dimerization, and upon secretion it is processed by a furin-type protease. Recombinant Human GDF-5 is a 27.0 kDa homodimeric disulfide-linked protein consisting of two 120 amino acid polypeptide chains. License: This product is produced solely by PeproTech Inc. under a license from Biopharm GmbH, Germany. Biopharm GmbH is not responsible for the quality or fitness for use of this product. It may be used only for research purposes and may neither be used in humans nor for veterinary purposes. This product may not be used for commercial purposes.

Research topic

Cardiovascular disease, Others

Amino Acid Sequence

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APSATRQGKR PSKNLKARCS RKALHVNFKA PSATRQGKRP SKNLKARCSR KALHVNFKDM GWDDMGWDDW IIAPLEYEAF
HCEGLCEFPL RSHLEPTNHA VIQTLMNSMD PESTPPTCCV PTRLSPISIL FIDSANNVVY KQYEDMVVES CGCR
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Source

E. coli

Purity

98%

Biological Activity

The ED_{50} was determined by its ability to induce alkaline phosphatase production by ATDC-5 chondrogenic cells is 1.0-2.0 µg/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water containing BSA (50ug of BSA per 1ug of protein) to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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