

32-18051: Recombinant Human GDF-5 Protein

Uniprot ID : P43026

Alternative Name : Growth/differentiation factor 5; GDF-5; Bone morphogenetic protein 14; BMP-14; Cartilage-derived morphogenetic protein 1; CDMP-1; Lipopolysaccharide-associated protein 4; LAP-4; LPS-associated protein 4; Radotermin; CDMP1

Description

Molecular weight: 13.7 KDa

Description: Recombinant Human Growth/Differentiation Factor 5 is produced by our E.coli expression system and the target gene encoding Ala382-Arg501 is expressed.

Growth Differentiation Factor 5(GDF-5, BMP-14) is a member of the BMP family of TGF β ² superfamily proteins. Human GDF-5, -6, and -7 are a defined subgroup of the BMP family. GDF-5 is synthesized as a homodimeric precursor protein consisting of a 354 amino acid (aa) Nterminal proregion and a 120 aa C-terminal mature peptide. Mature human GDF-5 shares 99% aa sequence identity with both mature mouse and rat GDF-5. GDF-5 signaling is mediated by formation of a heterodimeric complex consisting of a type I (BMPRII) and a type II (BMPRII or Activin RII) serine/threonine kinase receptor which results in the phosphorylation and activation of cytosolic Smad proteins (Smad1, 5, and 8). GDF-5 is involved in multiple developmental processes including limb generation, cartilage development, joint formation, bone morphogenesis, cell survival, and neuritogenesis. Inhibition of GDF-5 expression or alteration of its signaling can facilitate the development of osteoarthritis.

Product Info

Amount : 50 μ g

Content : Lyophilized from a 0.2 μ m filtered solution of 4mM HCl.

Storage condition : Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.