## 32-18051: Recombinant Human GDF-5 Protein

## Uniprot ID: P43026

Growth/differentiation factor 5; GDF-5; Bone morphogenetic protein 14; BMP-14; Cartilage-derived Alternative Name : 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 TGFî² 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 1 (BMPR-IB) and a type II (BMPR-Ilor 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 :

Content:

## Storage condition :

$50 \mu \mathrm{~g}$
Lyophilized from a 0.2 ?m filtered solution of 4 mM HCl .
Store at $-20^{\circ} \mathrm{C}$ to $-80^{\circ} \mathrm{C}$ for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at $-80^{\circ} \mathrm{C}$ (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

