

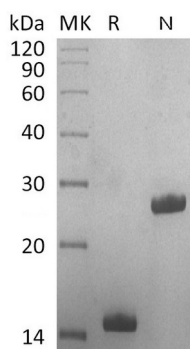
Product Name: Recombinant Human GDF-5
Catalog #: PEH0722



Summary

Name	GDF-5/BMP-14
Purity	Greater than 95% as determined by reducing SDS-PAGE
Endotoxin level	<1 EU/μg as determined by LAL test.
Construction	Recombinant Human Growth/Differentiation Factor 5 is produced by our E.coli expression system and the target gene encoding Ala382-Arg501 is expressed.
Accession #	P43026
Host	E.coli
Species	Human
Predicted Molecular Mass	13.7 KDa
Formulation	Lyophilized from a 0.2 μm filtered solution of 4mM HCl.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below.
Stability&Storage	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
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. 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.

SDS-PAGE image



Background

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Alternative Names

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

Background

Growth Differentiation Factor 5(GDF-5, BMP-14) is a member of the BMP family of TGF β 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 (BMPR-IB) and a type II (BMPR-II 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.

Note

For Research Use Only , Not for Diagnostic Use.