

Product datasheet for **TP727601**

GDF 5 (GDF5) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human GDF-5/BMP-14
Species:	Human
Expression cDNA Clone or AA Sequence:	Ala382-Arg501
Buffer:	Lyophilized from a 0.2 um filtered solution of 4mM HCl.
Note:	Recombinant Human Growth/Differentiation Factor 5 is produced by our E.coli expression system and the target gene encoding Ala382-Arg501 is expressed.
Stability:	12 months from date of despatch
Locus ID:	8200
UniProt ID:	P43026
Summary:	<p>Growth Differentiation Factor 5(GDF-5, BMP-14) is a member of the BMP family of TGFβ 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 (BMPRI 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.</p>



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