

Active Recombinant Mouse Growth Differentiation Factor 5

Cat. No. Gdf5-720M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Gdf5 protein was expressed in E. coli with and without an N-terminal Met. Ala376-Arg495.
Species	Mouse
Source	E.coli
Protein Length	376-495 a.a.
Description	Gdf5, also known as cartilage-derived morphogenetic protein 1, is a member of the bone morphogenetic protein (BMP) family which belongs to the transforming growth factor β (TGF β) superfamily. Gdf5 is synthesized as a large precursor protein that consists of an N-terminal 19 amino acid (aa) signal sequence, a 362 aa pro region and a 120 aa C-terminal mature peptide. Mature Gdf5 is a homodimeric protein which contains the characteristic seven conserved cysteine residues.
Form	Lyophilized from a 0.2 μ m filtered solution in Acetonitrile and TFA with BSA as a carrier protein.
N-terminal Sequence	Met and Ala376
Molecular Weight	13.7 kDa
Activity	Measured by its ability to induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. Nakamura, K. et al. (1999) Exp. Cell Res. 250:351. The

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	ED50for this effect is typically 0.2-1.2 µg/mL.
Endotoxin Level	<1.0 EUper 1 µg of the protein by the LAL method.
Purity	>95%,by SDS-PAGE under reducing conditions and visualized by silver stain.
Reconstitution	150µg/mL in sterile 4 mM HCl that containing at least 0.1% human or bovine serumalbumin.
Storage	Use amannual defrost freezer and avoid repeated freeze-thaw cycles. 12 months fromdate of receipt, -20 to -70°C as supplied. 1 month, 2 to 8 °C under sterileconditions after reconstitution. 3 months, -20 to -70°C under sterileconditions after reconstitution.

GENE INFORMATION

Gene Name	Gdf5 growth differentiationfactor 5 [Mus musculus]
Official Symbol	Gdf5
Synonyms	Gdf5; growthdifferentiation factor 5; bp; brp; Cdmp-1; growth/differentiation factor 5;GDF-5; brachypodism; cartilage-derived morphogenetic protein-1
Gene ID	14563
mRNA Refseq	NM_008109
Protein Refseq	NP_032135
UniProt ID	P43027

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Chromosome Location	2 H1; 2 90.0 cM
Pathway	Cytokine-cytokinereceptor interaction; TGF-beta signaling pathway
Function	cytokine activity;growth factor activity; protein binding
PDBrendering based on 1waq.	