

Active Recombinant Mouse Gdf5 Protein

Cat. No. Gdf5-065M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of Mouse growth differentiation factor 5 (Gdf5) without tag was expressed in E.coli.
Species	Mouse
Source	E.coli
Description	This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer. This protein regulates the development of numerous tissue and cell types, including cartilage, joints, brown fat, teeth, and the growth of neuronal axons and dendrites. Mice with a mutation in this gene exhibit enhanced tooth enamel formation.
Bio-activity	Determined by its ability to induce alkaline phosphatase production by ATDC-5 cells. The expected ED50 for this effect is 1.0-2.0 ug/ml.
Molecular Mass	27 kDa
AA Sequence	APLANRQGKRPSKNLKARCSRKALHVNFKDMGWDDWIIAPLEYEAFHCEGLCEFPL RSHLEPTNHAVIQTLMNMSMDPESTPPTCCVPTRLSPISILFIDSANNVVYKQYEDMVV ESGCR

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Endotoxin	Endotoxin level is < 0.1 ng/g of protein (< 1 EU/g)
Purity	>95%, as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for at least 6 months from date of receipt under proper storage and handling conditions.
Storage	Store at -80 centigrade.
Storage Buffer	Lyophilized from a 0.2 M filtered solution of 20mM phosphate buffer, 100mM NaCl, pH 7.2
Reconstitution	Resuspend the protein in the desired concentration in proper buffer.

GENE INFORMATION

Gene Name	Gdf5 growth differentiation factor 5 [Mus musculus (house mouse)]
Official Symbol	Gdf5
Synonyms	Gdf5; growth differentiation factor 5; bp; brp; BMP-14; Cdmp-1; growth/differentiation factor 5; bone morphogenetic protein 14; cartilage-derived morphogenetic protein-1
Gene ID	14563
mRNA Refseq	NM_008109
Protein Refseq	NP_032135
UniProt ID	P43027

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