

Active Recombinant Mouse Growth Differentiation Factor 5

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

SPECIFICATION

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| 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 |

 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

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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

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| 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 |

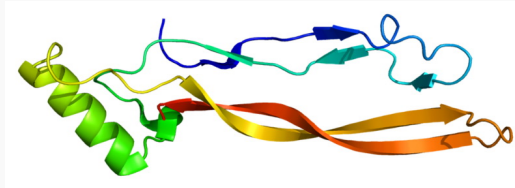
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| Chromosome Location | 2 H1; 2 90.0 cM |
| Pathway | Cytokine-cytokinereceptor interaction; TGF-beta signaling pathway |
| Function | cytokine activity;growth factor activity; protein binding |

PDBrendering based on 1waq.



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