

Datasheet for ABIN6699912

GDF5 Protein**2** Images[Go to Product page](#)

Overview

Quantity:	10 µg
Target:	GDF5
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Application:	SDS-PAGE (SDS)

Product Details

Purpose:	Human Growth and Differentiation Factor-5 Recombinant Protein
Purification:	Growth and Differentiation Factor-5 purity was determined to be greater than 98% as determined by analysis by HpLC, UV-Spectroscopy at 280nm and by reducing and non-reducing SDS-pAGE.
Purity:	98,00%
Endotoxin Level:	Measured by LAL is typically ≤ 1 EU/µg protein.
Biological Activity Comment:	The activity is determined by the ability to induce alkaline phosphatase activity in ATDC5 cells is typically 0.1-1 µg/mL.

Target Details

Target:	GDF5
Alternative Name:	GDF5 (GDF5 Products)
Background:	Synonyms: Cartilage-derived morphogenetic protein 1

Target Details

Background: Growth/Differentiation Factor 5 (GDF-5) is a growth factor that regulates cell proliferation and differentiation in embryonic and adult tissues. GDF-5 is part of the TGF family of proteins and is closely related to the BMP family of proteins. Recombinant human GDF-5 is a non-glycosylated homodimer, containing two 120 amino acids chains, with a total molecular weight of 27.4 kDa. To enable bacterial expression the N-terminal sequence of Ala-Pro-Leu-Thr was replaced with a Lys.

UniProt: [P43026](#)

Application Details

Application Notes: Other: User Optimized
Application_Note: Growth and Differentiation Factor-5 Recombinant Protein has been tested by SDS-PAGE and biological activity and is suitable as a control for polyclonal or monoclonal anti-Growth and Differentiation Factor-5 in immunological assays.

Comment: Suggested_Applications: Cellular Assay
Other_Performance_Data:

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Reconstitution_Buffer: Restore with deionized water (or equivalent)
Reconstitution_Volume: 10 µL (10-100 µL)

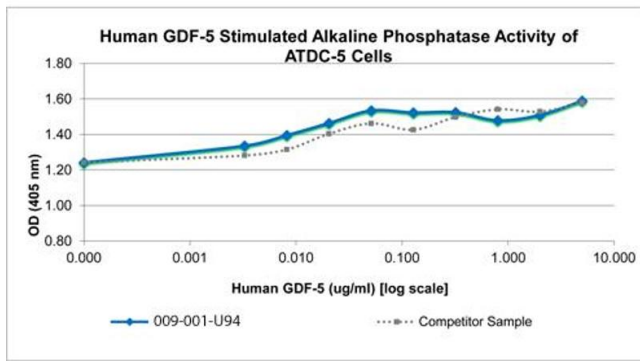
Buffer: Buffer: 0.1 % Trifluoroacetic acid
Stabilizer: None

Preservative: Without preservative

Storage: 4 °C,-20 °C

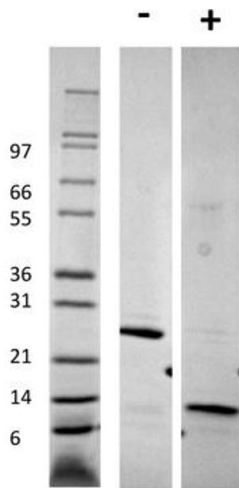
Storage Comment: Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL). For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.

Expiry Date: 6 months



SDS-PAGE

Image 1. SDS-PAGE of Human Growth and Differentiation Factor-5 Recombinant Protein Bioactivity of Human Growth and Differentiation Factor-5 Recombinant Protein. Serial dilutions of Human GDF-5, starting at 5 ug/mL, were added to ATDC-5 cells growing in the presence of 4 ug/mL heparin. Alkaline phosphatase activity was measured after 67 hours and the linear portion of the curve was used to calculate the ED50. The ED50 of Human GDF-5 is 0.01 ug/mL. This value is comparable to the typical expected range of <1 ng/mL.



SDS-PAGE

Image 2. SDS-PAGE of Human Growth and Differentiation Factor-5 Recombinant Protein SDS-PAGE of Human Growth and Differentiation Factor-5 Recombinant Protein. Lane 1: Molecular weight marker. Lane 2: 1 µg Human GDF-5 in non-reducing conditions. Lane 3: 1 µg Human GDF-5 in reducing conditions (+). Human GDF-5 is predicted to be a homodimer with a total MW of 26.8 kDa.