Growth and differentiation factor-5 (human), (recombinant)

Growth and 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.

- High purity
- Carrier-free

Manuals, SDS & CofA

View Online »

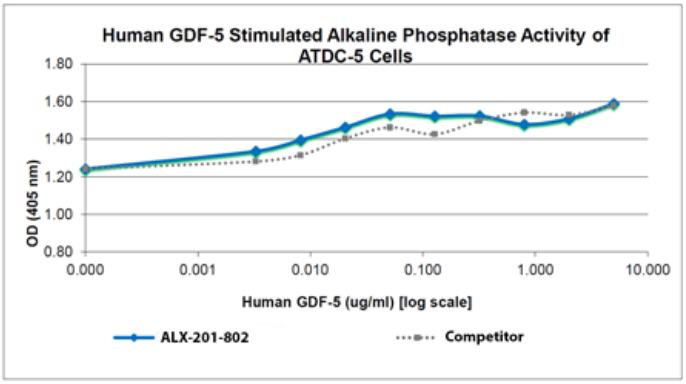


Figure 1: Human GDF-5 Bioactivity Data. Serial dilutions of human GDF-5, starting at 5µg/ml, were added to ATDC-5 cells growing in the presence of 4µg/ml heparin. Alkaline phosphate activity was measure after 67 hours and the linear portion of the curve was us used to calculate the ED50. The ED50 for this specific lot Human GDF-5 was 0.01µg/ml. This value is comparable to the typical expected range of <1ng/ml.

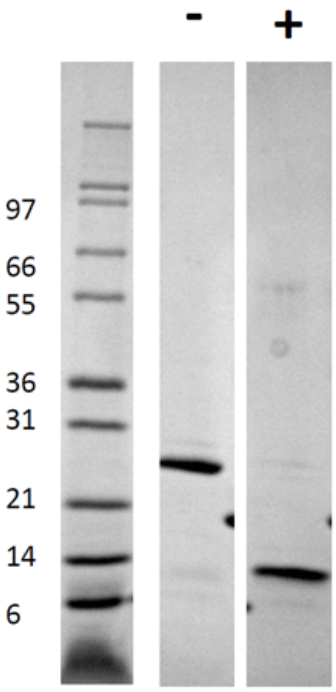


Figure 2: 1µg in each lane (-) non-reducing conditions and (+) reducing conditions in a 4-20% TRIS-Glycine gel, stained with Coomassie Blue. Human GDF-5 is predicted to be a homodimer with a total MW of 26.8 kDa.

Handling & Storage

Use/Stability	It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.
Handling	Centrifuge the vial before opening the cap. After reconstitution, prepare aliquots and store at -20°C.
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	GDF-5, CDMP-1, BMP-14, Bone morphogenetic protein 14, Cartilage-derived morphogenetic protein 1, LAP-4, LPS-associated protein 4, Radotermin
Appearance	White lyophilized (freeze-dried) powder.
Biological Activity	The activity is determined by the ability to induce alkaline phosphatase activity in ATDC5 cells which is typically observed at a concentration of 0.1-1μg/ml.
Endotoxin Content	≤1 EU/μg protein measured by kinetic LAL analysis.
Formulation	Lyophilized. Sterile filtered.
MW	~28.8kDa
Purity	≥98% (HPLC, Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm)
Reconstitution	When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

Source	Produced in *E. coli*. Non-glycosylated homodimer, containing two 117 amino acids chains. To enable bacterial expression the N-terminal sequence of Ala-Pro-Leu-Thr was replaced with a Lys.
UniProt ID	P43026

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