CELL APPLICATIONS, INC.

RECOMBINANT PROTEINS

Human Growth and Differentiation Factor-5

SIZE	CAT. NO.
10 ug	RP1071-10
50 ug	RP1071-50
1000 ug	RP1071-1000

BACKGROUND

Growth/Differentiation Factor 5, GDF-5, is 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 117 amino acids and having a total molecular mass of 26.8 kDa. To enable bacterial expression the N-terminal sequence of Ala-Pro-Leu-Thr was replaced with a Lys.

Alternative Names:
CDMP-1

Amino Acid Sequence:
APSATRQGKR PSKNLKARCS RKALHVNFKD MGWDDWIIAP
LEYEAFHCEG LCEFPLRSHL EPTNHAVIQT LMNSMDPEST
PPTCCVPTRL SPISILFIDS ANNVVYKQYE DMVVESCGCR

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:
Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:
Recombinant human GDF-5 is lyopohilized with no additives.

Stability:
Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:
Centrifuge vial before opening. 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.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:
Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:
The activity is determined by the ability to induce alkaline phosphatase activity in ATDC5 cells is typically 1-2 ug/ml.