CELL APPLICATIONS, INC.

RECOMBINANT PROTEINS
Human Growth and Differentiation Factor-15

SIZE	CAT. NO.
20 ug	RP1171-20
100 ug	RP1171-100
1000 ug	RP1171-1000

BACKGROUND

Growth and differentiation factor 15 (GDF-15) is a TGFβ family member, made by in the placenta and heart tissues, that has a role in regulating inflammatory and apoptotic pathways. GDF-15 has become an immerging marker of early heart disease and has the potential as being used as a molecule for screening patients for early heart failure.

Recombinant human GDF-15 is a non-glycosylated, disulfide linked homodimer. It is comprised of two identical 120 amino acid monomers and has a total molecular mass of 26.8 kDa.

Alternative Names:
MIC-1, Placental TGFβ, Prostate differentiation factor

Amino Acid Sequence:
MARNGDHCPL GPGRCCRLHT VRASLEDLGW ADWVLSPREV
QVTMCIGACP SQFRAANMHA QIKTSLHRLK PDTVPAPCCV
PASYNPMVLI QKTDTGVSLQ TYDDLLAKDC HCI

TECHNICAL INFORMATION

Source: *E.coli*

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

Formulation:
Recombinant human GDF-15 is lyophilized 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 5 mM acetic acid 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 inhibition of DU-145 cells and is typically 1-2 ug/mL.