

BACKGROUND

Growth and differentiation factor 15 (GDF-15) is a TGF β 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 emerging 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 (D-variant) 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. There is a His to an Asp substitution at position 7.

Alternative Names:

MIC-1, Placental TGF β , Prostate differentiation factor

Amino Acid Sequence:

MARNGDDCPL GPGRCCLLHT VRASLEDLGW ADWVLSPREV
QVTMCIGACP SQFRAANMHA QIKTSLHRLK PDTVPAPCCV
PASYNPMVLI QKTDGTGVSQ TYDDLAKDC HCI

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:

Recombinant human GDF-15 D 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.

Products are for research use only. They are not intended for human, animal, or diagnostic applications.

