Growth and Differentiation factor 15 H-Variant, human recombinant (rHuGDF-15H)

Catalog No: 97381
Lot No: XXXXX
Source: *E. coli*
Synonyms: GDF-15, MIC1, MIC-1, NAG-1, PDF, PLAB, PTGFB, Growth/differentiation factor 15, Placental bone morphogenetic protein, Placental TGF-beta, Macrophage inhibitory cytokine 1, Prostate differentiation factor, NSAID-activated gene 1 protein, NSAID-regulated gene 1 protein, NRG-1, GDF15

Background

GDF15 is part of the TGF-Beta superfamily that is involved in regulating inflammatory and apoptotic pathways in injured tissues and throughout disease processes. GDF15 is most abundant in the liver. Its expression in liver can be considerably up-regulated in during injury of organs such as liver, kidney, heart and lung. GDF-15 promotes proliferation or growth arrest and differentiation due to differences in cellular differentiation. GDF15 prevents apoptosis in cerebellar granule neurons by activating Akt and inhibiting endogenously active ERK. GDF15 is a novel autocrine/endocrine factor that antagonizes the hypertrophic response and loss of ventricular performance.

Description

GDF15 human recombinant produced in *E. coli* is a homodimeric, non-glycosylated, polypeptide chain containing 2x113 amino acids and having a molecular mass of 24.5 kDa. GDF15 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

GDF15 is lyophilized without additives.

Solubility

It is recommended to reconstitute the lyophilized GDF15 in sterile 5 mM AcOH (acetic acid) at a concentration of 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized GDF15, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GDF15 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

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MARNGDHCPL GPGRCCRLHT VRASLEDLGW ADWVLSPREV QVTMCIGACP SQFRAANMHA QIKTSLHRLK PDTVPAPCCV
PASYNPMVLI QKTDTGVSLQ TYDDLLAKDC HCI
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Activity

The biological activity was assessed by the inhibition of DU-145 cells and was found to be 1 - 2 µg/ml.

Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.