



Growth Differentiation Factor-3, His Tag, human recombinant (rHuGDF3-His)

Catalog No: 97309
Lot No: XXXXX
Source: *E. coli*
Synonyms: VGR2, GDF-2, VGR-2, Vg-Related Gene-2, C78318, ecat9, Growth/differentiation factor 3, MGC123990, MGC123991, VG-1-related protein 2, GDF-3, GDF3

Background

GDF3 is a member of the TGF-beta superfamily though it does not show similarity pattern of conserved cysteine residues. GDF3 is linked to Vg-1 and human BMP-4. GDF3 transcripts are identified mainly in adult bone marrow, spleen, thymus, and adipose tissue. GDF3 expression is upregulated strongly in high-fat-fed C57Bl/6J FABP4/aP2 null mice, which develop obesity but not the related hyperglycemia or hyperinsulinemia characteristic of type II diabetes. GDF3 expression therefore bonds fatty acid metabolism in adipocytes and the expression of a differentiation regulator belonging to the bone morphogenetic proteins.

Description

GDF3 human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 124 amino acids and having a total molecular mass of 14.15 kDa. GDF3 is fused to a 10 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.

Physical Appearance

Filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated solution (0.5 mg/ml) containing 30 mM acetate buffer pH 4.

Solubility

It is recommended to reconstitute the lyophilized GDF3 in sterile 100 mM acetate buffer pH-4 at a concentration of 0.5 mg/ml. For the dilution into higher pH values, it is recommended to dilute the protein to a concentration of 10 µg/ml. Please note that in higher concentrations the solubility of GDF3 is limited. The protein is not sterile! Please sterile filter before using it in the cell culture.

Stability

Lyophilized GDF3, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GDF3 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 90.0% as determined by SDS-PAGE.

Amino Acid Sequence

MKHHHHHHAS AAIPVPKLSC KNLCHRHQLF INFRDLGWHK WIIAPKGFMA NYCHGECPPS LTISLNSSNY AFMQALMHAV
DPEIPQAVCI PTKLSPISML YQDNNDNVIL RHYEDMVVDE CGCG

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