

## Recombinant Human Growth Differentiation Factor 3

Cat. No. GDF3-584H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	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.
<b>Species</b>	Human
<b>Source</b>	Human
<b>Description</b>	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.
<b>Form</b>	The protein was lyophilized from a concentrated solution (0.5mg/ml) containing 30mM Acetate buffer pH-4.
<b>Purity</b>	Greater than 90.0% as determined by SDS-PAGE.
<b>Physical Appearance</b>	Filtered White lyophilized (freeze-dried) powder.

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**Solubility** It is recommended to reconstitute the lyophilized GDF3 in sterile 100mM Acetate buffer pH-4 at a concentration of 0.5mg/ml. For the dilution into higher pH values, it is recommended to dilute the protein to a concentration of 10µg/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.

**Amino acid sequence** MKHHHHHHAS AAIPVPKLSC KNLCHRHQLF INFRDLGWHK WIIAPKGFMA NYCHGECPPFS LTISLNSSNY AFMQALMHAV DPEIPQAVCI PTKLSPISML YQDNNDNVIL RHYEDMVVDECGCG.

**Storage** 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.

## GENE INFORMATION

**Gene Name** GDF3 growth differentiation factor 3 [ Homo sapiens ]

**Official Symbol** GDF3

**Synonyms** GDF3; growth differentiation factor 3; GDF-3

**Gene ID** 9573

**mRNA Refseq** NM\_020634

**Protein Refseq** NP\_065685

**MIM** 606522

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<b>UniProt ID</b>	Q9NR23
<b>Chromosome Location</b>	12p13.1
<b>Function</b>	cytokine activity; growth factor activity

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