Recombinant Human Myostatin

Cat. No. MSTN-118H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Myostatin produced inEscherichia Coliis a homodimer, non-glycosylated polypeptide chain containing 2 x 109 amino acids and having a total molecular mass of 24814 Dalton. The GDF-8 is purified by proprietary chromatographic techniques.
Species	Human
Source	E.coli
Description	GDF8 is a member of the bone morphogenetic protein (BMP) family and the TGF-beta superfamily. This group of proteins is characterized by a polybasic proteolytic processing site which is cleaved to produce a mature protein containing seven conserved cysteine residues. The members of this family are regulators of cell growth and differentiation in both embryonic and adult tissues. This gene is thought to encode a secreted protein which negatively regulates skeletal muscle growth.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Formulation	Lyophilized from a concentrated (1mg/ml) solution containing no additives.
Solubility	It is recommended to reconstitute the lyophilized Myostatin in sterile 20mM acetic acid not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

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Amino acid sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Asp-Phe-Gly-Leu-Asp.
Biological Activity	The ED50 as determined by the inhibition of the prolifiration of MPC-11 cells is < 20 ng/ml.
Protein content	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 1.55 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of Myostatin as a Reference Standard.
Storage	Lyophilized Myostatin although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution Myostatin should be stored at 4℃between 2-7 days and for future use below -18℃. 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	MSTN myostatin [Homo sapiens]
Synonyms	MSTN; myostatin; GDF8; growth differentiation factor 8;GDF-8; Myostatin
Gene ID	2660
mRNA Refseq	NM_005259
Protein Refseq	NP_005250
MIM	602642

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UniProt ID	O14788
Chromosome Location	2q32.2
Function	cytokine activity; growth factor activity

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