



## Myostatin, human recombinant (rHuMyostatin)

**Catalog No:** 87315  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** GDF-8, MSTN, Growth Differentiation Factor 8, MSTN Muscle Hypertrophy

### Background

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.

### Description

Myostatin human recombinant produced in *E. coli* is a homodimer, non-glycosylated polypeptide chain containing 2 x 109 amino acids and having a total molecular mass of 24814 Dalton. GDF-8 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

Lyophilized from a concentrated (1 mg/ml) solution containing no additives.

### Solubility

It is recommended to reconstitute the lyophilized Myostatin in sterile 20 mM HCl at 0.1 mg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized Myostatin, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Myostatin 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

The sequence of the first five N-terminal amino acids was determined and was found to be Asp-Phe-Gly-Leu-Asp.

### Activity

The ED50 as determined by the inhibition of the proliferation of MPC-11 cells is <20 ng/ml, corresponding to a specific activity of 50,000 units/mg.

### 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.**

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