

## Myostatin Propeptide Human E. coli Tag free

### Product Data Sheet

**Type:** Recombinant

**Source:** E. coli

**Species:** Human

**Other names:** Growth/differentiation factor 8, GDF-8, MSTN

**Cat. No.:**

RD172058100

(0.1 mg)

### Description

Total 248 AA. MW: 28 kDa (calculated). UniProtKB acc.no. O14793. 243 AA of recombinant human Myostatin Propeptide and 5 extra AA (highlighted).

### Introduction to the Molecule

Myostatin (GDF 8) is expressed uniquely in human skeletal muscle as a 12 kDa mature glycoprotein consisting of 109 amino acid residues and secreted into plasma. Myostatin is a member of the transforming growth factor beta superfamily of secreted growth and differentiation factors that is essential for proper regulation of skeletal muscle mass. Studies have shown that myostatin could play an important role in cardiac development and physiology. In serum, myostatin circulates as part of a latent complex containing myostatin propeptide and/or follistatin-related gene. The myostatin propeptide is known to bind and inhibit myostatin in vitro. This interaction is relevant in vivo, with a majority (>70%) of myostatin in serum bound to its propeptide. The myostatin propeptide is negative regulator of myostatin in vivo.

### Research topic

Muscle growth control

### Amino Acid Sequence

**MG**NENSEQKE NVEKEGLCNA CTWRQNTKSS RIEAIKIQIL SKLRLETAPN ISKDVIQQLL PKAPPLRELI DQYDVQRDDS  
SDGSLEDDDY HATTETIITM PTESDFLMQV DGKPKCCFFK FSSKIQYNKV VKAQLWIYLR PVETPTTVFV QILRLIKPMK  
DGTRYTGIRS LKLDMPGTG IWQSIDVKTV LQNWLKQPES NLGIEIKALD ENGHDLAVTF PGPGEDGLNP FLEVKVTDTP KRSRR  
**KLN**

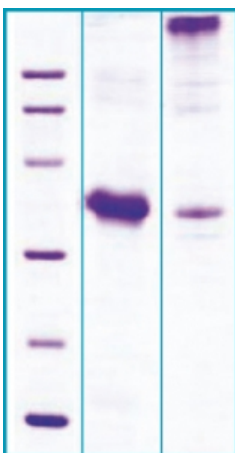
### Source

E. coli

### Purity

>95%

### SDS-PAGE gel



12% SDS-PAGE separation of Human Myostatin Propeptide

1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa

2. reduced and heated sample, 7µg/lane

3. non-reduced and non-heated sample, 7µg/lane

### Formulation

Filtered (0,4 µm) and lyophilized in 0.5 mg/mL in 20mM TRIS, 20mM NaCl, pH 8.0

## Reconstitution

Add deionized water to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. Filter sterilize your culture media/working solutions containing this non-sterile product before using in cell culture.

## Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

## Storage, Stability/Shelf Life

Store lyophilized protein at -20°C. Lyophilized protein remains stable until the expiry date when stored at -20°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C.

## Quality Control Test

BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

## Applications

ELISA, Western blotting

## Note

This product is intended for research use only.

## References to this Product

- Diel P, Schiffer T, Geisler S, Hertrampf T, Mosler S, Schulz S, Wintgens KF, Adler M. *Analysis of the effects of androgens and training on myostatin propeptide and follistatin concentrations in blood and skeletal muscle using highly sensitive Immuno PCR.* Mol Cell Endocrinol. 2010 Dec 15;330 (1-2):1-9

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