



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). 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 109 amino acid residues secreted into plasma. Myostatin is a member of the transforming growth factor β superfamily of secreted growth and differentiation factors that is essential for proper regulation of skeletal muscle mass. Myostatin is important for cardiac development. 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

MGNENSEQKE NVEKEGLCNA CTWRQNTKSS RIEAIKIQIL SKLRLETAPN ISKDVIQRL PKAPPLRELI DQYDVQRDDS
SDGSLEDDDY HATTETIITM PTESDFLMQV DGKPKCCFFK FSSKIQYNKV VKAQLWIYLR PVETPTTVFV QILRLIKPMK
DGTRYTGIRS LKLDMPGTG IWQSIDVKTV LQNLWKQPE NLGIEIKALD ENGHDLAVTF PGPGEDGLNP FLEVKVTDTTP KRSRR
KLN

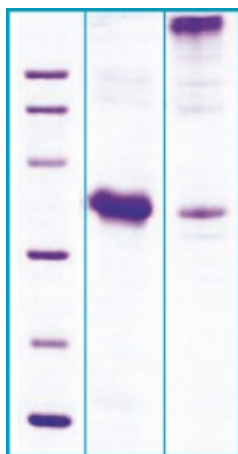
Source

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, 7 μ g/lane

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

Formulation

Filtered (0,4 μ m) 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. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the 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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