BioVendor - Laboratorní medicína a.s.
Karásek 1767/1
621 00 Brno-Řečkovice a Mokrá Hora

Date of issue: 18.01.2019

PRODUCT DATASHEET

Myostatin Propeptide Human E. coli Tag free

Cat. No.: RD172058025
Type: Recombinant protein
Size: 0.025 mg
Source: E. coli
Species: Human

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

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

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 β 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
Cardiovascular disease, Energy metabolism and body weight regulation, Muscle growth and physiology regulation, Pulmonary diseases

Amino Acid sequence
MGNENSEQKE NVEKEGLCNA CTWRQNTKSS RIEAIKIQIL SKLRLETAPN ISKDVIRQLL PKAPPLRELI DQYDVQRDDS SDGSLEDDDY HATTETIITM PTESDFLMQV DGKPKCCFFK FSSKIQYNKV VKAQLWIYLR PVETPTTVFV QILRLIKPMK DGTRYTGIRS LKLDMNPGTG IWQSIDVKTV LQNWLKQPES NLGIEIKALD ENGHDLAVTF PGPGEDGLNP FLEVKVTDTP KRSRRKLN

Purity
>95%

Endotoxin
< 1.0 EU/µg

Formulation:
Filtered (0,4 µm) and lyophilized in 0.5 mg/mL in 20mM TRIS, 50mM NaCl, pH 8.0

Reconstituion:
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.

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Storage, Stability/Shelf Life
Store the lyophilized protein at –80 °C. Lyophilized protein remains stable until the expiry date when stored at –80 °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 week.

Quality control
BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

LAL to determine quantity of endotoxin.

Applications
ELISA, Western blotting

Note
This product is intended for research use only.

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

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