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

Date of issue: 24.01.2019

PRODUCT DATASHEET

Myostatin Propeptide Human HEK293

Cat. No.: RD172058100-HEK
Type: Recombinant protein
Size: 0.1 mg
Source: HEK293
Species: Human

Description

Total 253 AA. MW: 29.1 kDa (calculated). UniProtKB acc. No. O14793 (Asn24–Arg266). C-terminal His-tag (10 extra AA). Protein identity confirmed by LC-MS/MS.

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

NENSEQKENV EKEGLCNACT WRQNTKSSRI EAIKIQILSK LRLETAPNIS KDVIRQLLPK APPLRELIDQ YDVQRDDSSD GSLEDDDYHA TTETIITMPT ESDFLMQVDG KPKCCFFKFS SKIQYNKVVK AQLWIYLRPV ETPTTVFVQI LRLIKPMKDG TRYTGIRSLK LDMNPGTGIW QSIDVKTVLQ NWLKQPESNL GIEIKALDEN GHDLAVTFPG PGEDGLNPFL EVKVTDTPKR SRRHHHHHHH HHH

Purity

Purity as determined by densitometric image analysis: > 80%

Endotoxin

< 1.0 EU/ug

Formulation:

Frozen from 0.3 – 0.6 mg/mL solution in phosphate buffered saline (PBS) pH 8.0 + 20% (w/v) glycerol

Reconstituion:

Defrost at ambient temperature. Filter sterilize your culture media/working solutions containing this non-sterile product before using in cell culture.

Shipping

On ice. Upon receipt, store the product at the temperature recommended below.

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Storage, Stability/Shelf Life
Store protein at –80°C. Protein remains stable until the expiry date when stored at –80°C. Avoid repeated freezing/thawing cycles. The thawed protein can be stored at 4 °C for three days.

Quality control
BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

LAL to determine quantity of endotoxin.

Applications
Cell culture and/or animal studies, ELISA, Western blotting

Note
This product is intended for research use only.

14 % SDS-PAGE separation of Human Myostatin Propeptide:
1. M.W. marker – 14, 21, 31, 45, 66, 97 kDa
2. Reduced and boiled sample, 2.5 µg/lane
3. Non-reduced and non-boiled sample, 2.5 µg/lane

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