



Myostatin Human, Bovine Polyclonal Antibody

Product Data Sheet

Source of Antigen: *E. coli*

Host: Bovine

Cat. No.:

RD181005220 (0.1 mg)

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

Research topic

Muscle growth control

Preparation

The antibody was raised in bovine by immunization with the recombinant Human Myostatin.

Amino Acid Sequence

The immunization antigen (16.7 kDa) is a protein containing 152 AA of recombinant Human Myostatin. N-terminal His-tag including the spacer 43 AA (highlighted). The AA sequence of the human myostatin part of the fusion protein is corresponding to the UniProtKB/Swiss-Prot entry O14793, AA267-375.

MRGSHHHHHH **GMASMTGGQQ** MGRDLYDDDD **KDPSSRS**AVR **SRR**DFGLDCD EHSTESRCCR YPLTVDFEAF GWDWIIAPKR
YKANYCSGEC EFVFLQKYPH THLVHQANPR GSAGPCCTPT KMSPINMLYF NGKEQIIYGK IPAMVVDRCG CS

The amino acid sequence of the recombinant Human Myostatin is 100% homologous to the amino acid sequence of the Human Myostatin.

Species Reactivity

Human

Not yet tested in other species.

Purification Method

Immunoaffinity chromatography on a column with immobilized recombinant Human Myostatin.

Antibody Content

0.1 mg (determined by BCA method, BSA was used as a standard)

Formulation

The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. **AZIDE FREE.**

Reconstitution

Add 0.1 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

Shipping

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

Storage/Stability

The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

Expiration

See vial label.

Lot Number

See vial label.

Quality Control Test

Indirect ELISA - to determine titer of the antibody

SDS PAGE - to determine purity of the antibody

Applications

Western blotting

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.

References to this Product

- McFarland DC, Velleman SG, Pesall JE, Liu C . *The role of myostatin in chicken (Gallus domesticus) myogenic satellite cell proliferation and differentiation*. [Gen Comp Endocrinol](#) . May 1;151(3):351-7 (2007)

Note

This product is for research use only.

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