



## Myostatin Propeptide Human, Mouse Monoclonal Antibody, Clone: 4B9

### Product Data Sheet

**Source of Antigen:** *E. coli*

**Host:** Mouse

**Isotype:** IgG2b

**Cat. No.:**

RD1820571004B9 (0.1 mg)

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

### Research topic

Muscle growth control

### Preparation

The antibody is a mouse monoclonal antibody against recombinant Human Myostatin Propeptide.

### Amino Acid Sequence

The immunization antigen (28 kDa) is a protein containing 243 AA of recombinant Human Myostatin Propeptide and 5 extra AA (highlighted).

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

The amino acid sequence of the recombinant Human Myostatin Propeptide is 100% homologous with the amino acid sequence of the Human Myostatin Propeptide without signaling sequence.

### Species Reactivity

Human

Not yet tested in other species.

### Purification Method

Affinity chromatography on a column with immobilized protein G.

### 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**

Immunohistochemistry, 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.

**Note**

This product is for research use only.

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