

Myostatin Propeptide Human, Chicken Polyclonal Antibody

Product Data Sheet

Source of Antigen: E. coli Cat. nr.:

Host: Hen RD183057050 (0.05 mg)

Other names: GDF-8

Preparation

The antibody was raised in chicken by immunization with the 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).

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

Immunoaffinity chromatography on a column with immobilized recombinant Human Myostatin Propeptide.

Antibody Content

0.05 mg (determined by BCA method)

Formulation

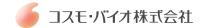
The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. AZIDE FREE.

Reconstitution

Add 0.05 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.

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

ELISA

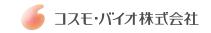
Introduction to the Molecule

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

- McPherron AC, Lee SJ. .
- Jiang MS, Liang LF, Wang S, Ratovitski T, Holmstrom J, Barker C, Stotish R. *Characterization and identification of the inhibitory domain of GDF-8 propeptide.*
- McPherron A.C. and Lee S.J. Double muscling in cattle due to mutations in the myostatin gene.
- Thies RS, Chen T, Davies MV, Tomkinson KN, Pearson AA, Shakey QA, Wolfman NM. GDF-8
 propeptide binds to GDF-8 and antagonizes biological activity by inhibiting GDF-8 receptor
 binding.
- Taylor WE, Bhasin S, Artaza J, Byhower F, Azam M, Willard DH Jr, Kull FC Jr, Gonzalez-Cadavid N.
 Myostatin inhibits cell proliferation and protein synthesis in C2C12 muscle cells.
- Artaza JN, Bhasin S, Magee TR, Reisz-Porszasz S, Shen R, Groome NP, Fareez MM, Gonzalez-Cadavid NF. Myostatin inhibits myogenesis and promotes adipogenesis in C3H 10T(1/2) mesenchymal multipotent cells. Endocrinology.
- Sharma M. et al. Myostatin, a transforming growth factor beta superfamily member, is expressed in heart muscle and is upregulated in cardiomyocytes after infarct.
- Sharma M, Kambadur R, Matthews KG, Somers WG, Devlin GP, Conaglen JV, Fowke PJ, Bass JJ.
 Myostatin, a transforming growth factor-beta superfamily member, is expressed in heart muscle and is upregulated in cardiomyocytes after infarct.
- Gonzalez-Cadavid NF, Taylor WE, Yarasheski K, Sinha-Hikim I, Ma K, Ezzat S, Shen R, Lalani R, Asa S, Mamita M, Nair G, Arver S, Bhasin S. Organization of the human myostatin gene and expression in healthy men and HIV-infected men with muscle wasting.
- Gonzalez Cadavid N.F., Taylor W.E. et al. Organization of the human myostatin gene and expression in heathy men and HIV infected men with muscle wasting.
- Lee SJ, McPherron AC. Regulation of myostatin activity and muscle growth.
- Hill JJ, Davies MV, Pearson AA, Wang JH, Hewick RM, Wolfman NM, Qiu Y. The myostatin
 propeptide and the follistatin-related gene are inhibitory binding proteins of myostatin in normal
 serum.

Note



HEADQUARTERS: BioVendor Laboratorní medicína, a.s. EUROPEAN UNION: BioVendor GmbH	CTPark Modrice Evropska 873 Im Neuenheimer Feld 583	664 42 Modrice CZECH REPUBLIC D-69120 Heidelberg GERMANY	Fax:	: +420-549-124-185 +420-549-211-460 +49-6221-433-9100 +49-6221-433-9111	Web:	info@biovendor.com www.biovendor.com infoEU@biovendor.com
USA, CANADA AND MEXICO: BioVendor LLC	1463 Sand Hill Road Suite 227	Candler, NC 28715 USA	Phone: Fax:	+1-828-670-7807 +1-800-404-7807 +1-828-670-7809	E-mail:	infoUSA@biovendor.com
CHINA - Hong Kong Office: BioVendor Laboratories Ltd	Room 4008 Hong Kong Plaza, No.188	Connaught Road West Hong Kong, CHINA	Phone: Fax:	+852-2803-0523 +852-2803-0525	E-mail:	infoHK@biovendor.com
CHINA - Mainland Office: BioVendor Laboratories Ltd	Room 2405 YiYa Tower TianYu Garden, No.150	Lihe Zhong Road Guang Zhou, CHINA	Phone: Fax:	+86-20-3884-0399 +86-20-3884-0386 +86-20-3884-0386	E-mail:	infoCN@biovendor.com