

Myostatin Active Protein | MSTN active protein

Active Myostatin (MSTN)

CATALOG #
AAA150112

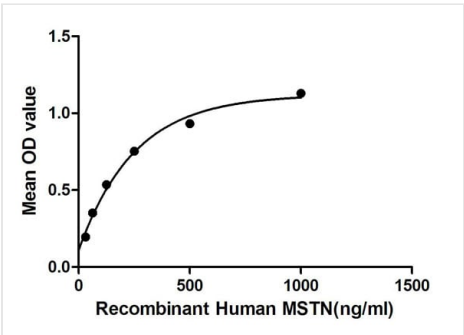
APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Myostatin; Active Myostatin (MSTN); GDF8; Growth Differentiation Factor 8; MSTN active protein

PRODUCT SPECIFICATIONS

Purity/Purification	>95%
Form/Format	Freeze-dried powder 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Asn24~Ser375
Sequence Length	375
Applicable Applications for MSTN active protein	Activity Assay, Cell Culture
Species	Human
Tag	N-terminal His Tag
Isoelectric Point	6.4
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

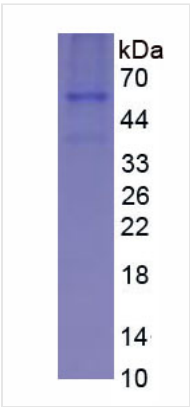


Bioactivity

Myostatin (MSTN) also known as growth differentiation factor 8 (GDF-8) is a member of the TGF beta protein family. Myostatin is a secreted growth differentiation factor that produced and released by myocytes. This protein negatively regulates skeletal muscle cell proliferation and differentiation. Besides, Bone Morphogenetic Protein 1 (BMP1) has been identified as an interactor of MSTN, thus a binding ELISA assay was conducted to detect the interaction of recombinant human MSTN and recombinant human BMP1. Briefly, MSTN were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to BMP1-coated microtiter wells and incubated for 2h at 37. Wells were washed with PBST and incubated for 1h with anti-MSTN pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of MSTN and BMP1 was shown in Figure 1, and this effect was in a dose dependent manner. Figure. The binding activity of MSTN with BMP1.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for MSTN active protein	Cytokine; Metabolic pathway; Bone metabolism
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4885259
NCBI GeneID	2660
NCBI Accession #	NP_005250.1
NCBI GenBank Nucleotide #	NP_005250.1
UniProt Accession #	O14793
Molecular Weight	Predicted Molecular Mass: 40.3kDa Accurate Molecular Mass: 54kDa
NCBI Official Full Name	growth/differentiation factor 8 preproprotein
NCBI Official Synonym Full Names	myostatin
NCBI Official Symbol	MSTN
NCBI Official Synonym Symbols	GDF8; MSLHP
NCBI Protein Information	growth/differentiation factor 8
UniProt Protein Name	Growth/differentiation factor 8
UniProt Gene Name	MSTN
UniProt Synonym Gene Names	GDF8; GDF-8
UniProt Entry Name	GDF8_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/mstn-active-protein/myostatin/150112>