Recombinant human MSTN, Active, His-tagged

Cat. No. MSTN-1563H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Myostatin is a homodimer polypeptide chain containing 2X 109 amino acids (267 – 375 of O14793 Growth/differentiation factor 8) and 6 aa Histidine-based tag. It as a predicted molecular mass of 26.8 kDa (13.4 kDa under reducing conditions in SDS PAGE)
Species	Human
Source	Nicotiana Benthamiana
ProteinLength	267-375 a.a.
Description	Myostatin belongs to the transforming growth factor beta (TGFBs) superfamily, which includes : TGF-betas, Bone morphogenetic protein (BMPs), Growth differentiation factors (GDFs), Activins and Inhibins. As other members of this superfamily, is synthesized and secreted as a homodimeric prepropeptide that is cleaved by proprotein convertases such as furin, to generate the dimeric N- terminal propeptide and the dimeric C-terminal mature active protein.Myostatin is one of the most important protein that controls myoblast proliferation and it is a potent negative regulator of skeletal muscule mass in many animal species. Several studies have shown that Myostatin could play an important role in cardiac development and physiology.Genetic deletion of Myostatin or in vivo administration of the Myostatin propeptide induces muscle hypertrophy as well as enhanced glucose utilization and insulin sensitivity and a reduction in overall fat mass.

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Form	Recombinant human Myostatin is lyophilized from a Tris HCl 50mM, Urea 1.5M, PMSF 0.004M and Glycine 50mM Buffer pH 8.0.
Molecular Mass	26.8 kDa (13.4 kDa under reducing conditions in SDS PAGE)
AA Sequence	HHHHHHDFGLDCDEHSTESRCCRYPLTVDFEAFGWDWIIAPKRYKANYCSGECEF VFLQKYPHTHLVHQANPRGS AGPCCTPTKMSPINMLYFNGKEQIIYGKIPAMVVDR CGCS
Endotoxin	< 0.04="" eu/μg="" protein="" (lal="">
Purity	>97% by SDS-PAGE gel
Storage	This lyophilized preparation is stable at 2-8o C for short term, long storage it should be kept at -20oC. Reconstituted protein should be stored in working aliquots at –20°C. Repeated freezing and thawing is not recommended.
Reconstitution	Centrifuge vial before opening. Lyophilized protein should be reconstituted in water to a concentration of 5 ng/ul. Due to the protein nature, dimmers and multimers may be observed. Optimal concentration should be determined for specific application and cell lines.

GENE INFORMATION

Gene Name	MSTN myostatin [Homo sapiens]
Official Symbol	MSTN
Synonyms	MSTN; myostatin; GDF8, growth differentiation factor 8; growth/differentiation factor 8; GDF-8; growth differentiation factor 8; GDF8; MSLHP;

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Gene ID	2660
mRNA Refseq	NM_005259
Protein Refseq	NP_005250
MIM	601788
UniProt ID	O14793
Chromosome Location	2q32.1
Pathway	Hypertrophy Model, organism-specific biosystem;
Function	cytokine activity; growth factor activity; receptor binding; contributes_to receptor binding;

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