

## Active Recombinant Human MSTN Protein

Cat. No. MSTN-211H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human MSTN Protein without tag was expressed in E. coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	267-375
<b>Description</b>	<p>Myostatin, also known as GDF-8, is a conserved member of the TGF-beta superfamily. Myostatin is an essential regulator of skeletal muscle mass and cardiac muscle development and function. Myostatin is a secreted protein that negatively regulates skeletal muscle growth by determining muscle fiber number and size. Myostatin binds one of the two activin type II receptors (ACTRIIA or ACTRIIB) to activate SMAD signaling. Myostatin also activates MAPK signaling through TAK1-MKK6 and Ras pathways. Inhibition of myostatin increases muscle mass in a number of human disease animal models, such as muscular dystrophy.</p>
<b>Bio-activity</b>	MPC-11 cell cytotoxicity, $\leq 50$ ng/ml; $\geq 2.0 \times 10^4$ units/mg
<b>Molecular Mass</b>	Dimer, 12.4/24.8 kDa (109/218 aa)
<b>AA Sequence</b>	DFGLDCDEHSTESRCCRYPLTVDFEAFGWDWIIAPKRYKANYCSGECEFVFLQKYP HTHLVHQANPRGSAGPCCTPTKMSPINMLYFNGKEQIIYGKIPAMVVDRCGCS
<b>Endotoxin</b>	$\leq 1$ EUs/ $\mu$ g, Kinetic LAL

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<b>Purity</b>	≥95%, Reducing and Non-Reducing SDS PAGE
<b>Stability</b>	12 months from date of receipt when stored at -20 to -80 centigrade as supplied. 1 month when stored at 4 centigrade after reconstituting as directed. 3 months when stored at -20 to -80 centigrade after reconstituting as directed.
<b>Storage</b>	Storage Prior to Reconstitution: -20 centigrade
<b>Storage Buffer</b>	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
<b>Reconstitution</b>	Sterile 20 mM HCl at 0.1 mg/mL
<b>Shipping</b>	Room temperature
<b>Instructions</b>	Centrifuge vial before opening. Suspend the product by gently pipetting the above recommended solution down the sides of the vial. DO NOT VORTEX. Allow several minutes for complete reconstitution. For prolonged storage, dilute to working aliquots in a 0.1% BSA solution, store at -80 centigrade and avoid repeat freeze thaws.

## GENE INFORMATION

<b>Gene Name</b>	MSTN myostatin [ <i>Homo sapiens</i> (human) ]
<b>Official Symbol</b>	MSTN
<b>Synonyms</b>	MSTN; myostatin; GDF8, growth differentiation factor 8; growth/differentiation factor 8; GDF-8; growth differentiation factor 8; GDF8; MSLHP;
<b>Gene ID</b>	2660

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mRNA Refseq	NM_005259
Protein Refseq	NP_005250
MIM	601788
UniProt ID	O14793

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