

Active Recombinant Human MSTN Protein

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

SPECIFICATION

Product Overview	Recombinant Human MSTN Protein without tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	267-375
Description	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.
Bio-activity	MPC-11 cell cytotoxicity, ≤ 50 ng/ml; $\geq 2.0 \times 10^4$ units/mg
Molecular Mass	Dimer, 12.4/24.8 kDa (109/218 aa)
AA Sequence	DFGLDCDEHSTESRCCRYPLTVDFEAFGWDWIIAPKRYKANYCSGECEFVFLQKYP HTHLVHQANPRGSAGPCCTPTKMSPINMLYFNGKEQIIYGKIPAMVVDRCGCS
Endotoxin	≤ 1 EUs/ μ g, Kinetic LAL

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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Purity	≥95%, Reducing and Non-Reducing SDS PAGE
Stability	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.
Storage	Storage Prior to Reconstitution: -20 centigrade
Storage Buffer	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
Reconstitution	Sterile 20 mM HCl at 0.1 mg/mL
Shipping	Room temperature
Instructions	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

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

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mRNA Refseq	NM_005259
Protein Refseq	NP_005250
MIM	601788
UniProt ID	O14793

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