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Product datasheet for RC210368

Myostatin Propeptide (MSTN) (NM_005259) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Myostatin Propeptide (MSTN) (NM_005259) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Myostatin Propeptide
Synonyms:	GDF8; MSLHP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC210368 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAAAAACTGCAACTCTGTGTTTATATTTACCTGTTTATGCTGATTGTTGCTGGTCCAGTGGATCTAA
ATGAGAACAGTGAGCAAAAAGAAAATGTGGAAAAAGAGGGGCTGTGTAATGCATGTACTTGGAGACAAAA
CACTAAATCTTCAAGAATAGAAGCCATTAAGATACAAATCCTCAGTAAACTTCGTCTGGAAACAGCTCCT
AACATCAGCAAAGATGTTATAAGACAACTTTTACCCAAAGCTCCTCCACTCCGGGAACTGATTGATCAGT
ATGATGTCCAGAGGGATGACAGCAGCGATGGCTCTTTGGAAGATGACGATTATCACGCTACAACGGAAAC
AATCATTACCATGCCTACAGAGTCTGATTTTCTAATGCAAGTGGATGGAAAACCCAAATGTTGCTTCTTT
AAATTTAGCTCTAAAATACAATACAATAAAGTAGTAAAGGCCCAACTATGGATATATTTGAGACCCGTCG
AGACTCCTACAACAGTGTTTGTGCAAATCCTGAGACTCATCAAACCTATGAAAGACGGTACAAGGTATAC
TGGAATCCGATCTCTGAAACTTGACATGAACCCAGGCACTGGTATTTGGCAGAGCATTGATGTGAAGACA
GTGTTGCAAAATTGGCTCAAACAACCTGAATCCAACTTAGGCATTGAAATAAAAGCTTTAGATGAGAATG
GTCATGATCTTGCTGTAACCTTCCCAGGACCAGGAGAAGATGGGCTGAATCCGTTTTTAGAGGTCAAGGT
AACAGACACACCAAAAAGATCCAGAAGGGATTTTGGTCTTGACTGTGATGAGCACTCAACAGAATCACGA
TGCTGTCGTTACCCTCTAACTGTGGATTTTGAAGCTTTTGGATGGGATTGGATTATCGCTCCTAAAAGAT
ATAAGGCCAATTACTGCTCTGGAGAGTGTGAATTTGTATTTTTACAAAAATATCCTCATACTCATCTGGT
ACACCAAGCAAACCCCAGAGGTTCAGCAGGCCCTTGCTGTACTCCCACAAAGATGTCTCCAATTAATATG
CTATATTTTAATGGCAAAGAACAAATAATATATGGGAAAATTCCAGCGATGGTAGTAGACCGCTGTGGGT
GCTCA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC210368 protein sequence
Red=Cloning site Green=Tags(s)

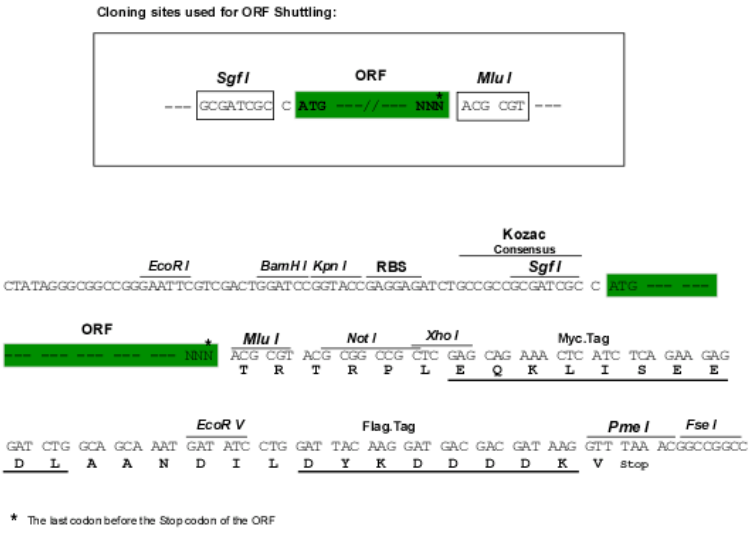
MQKLQLCVYIYLFMLIVAGPVDLNENSEQKENVEKEGLCNACTWRQNTKSSRIEAIKIQILSKLRLETAP
NISKDVIRQLLPKAPPLRELIDQYDVQRDDSSDGSLEDDDYHATTETIITMPTESDFLMQVDGKPKCCFF
KFSSKIQYNKVVKAQLWIYLRPVETPTTVFVQILRLIKPMKDGTRYTGIRSLKLDMNPGTGIWQSIDVKT
VLQNWLKQPESNLGIEIKALDENGHDLAVTFPGPGEDGLNPFLEVKVTDTPKRSRRDFGLDCDEHSTESR
CCRYPLTVDFEAFGWDWIIAPKRYKANYCSGECEFVFLQKYPHTHLVHQANPRGSAGPCCTPTKMSPINM
LYFNGKEQIIYGKIPAMVVDRCGCS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6006_b05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005259

ORF Size: 1125 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: NM_005259.3

RefSeq Size: 2823 bp

RefSeq ORF: 1128 bp

Locus ID: 2660

UniProt ID: O14793

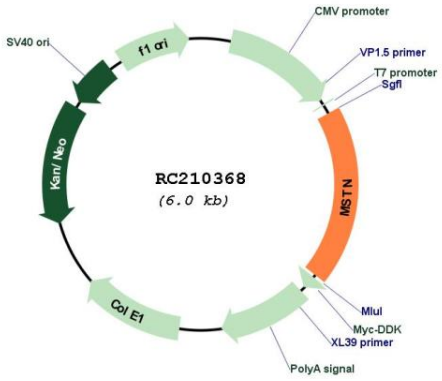
Cytogenetics: 2q32.2

Protein Families: Druggable Genome, Secreted Protein

MW: 42.8 kDa

Gene Summary: This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer. This protein negatively regulates skeletal muscle cell proliferation and differentiation. Mutations in this gene are associated with increased skeletal muscle mass in humans and other mammals. [provided by RefSeq, Jul 2016]

Product images:



Circular map for RC210368

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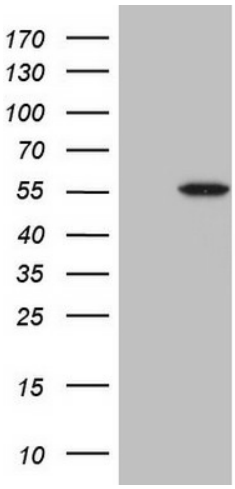
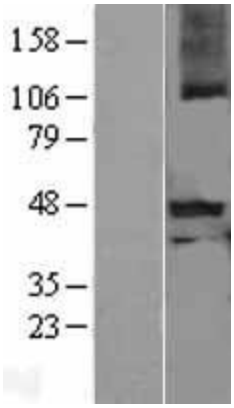
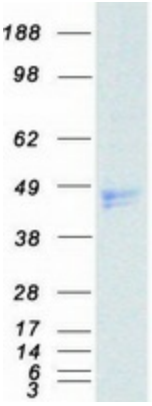


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MSTN (Cat# RC210368, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MSTN (Cat# [TA807791])(1:2000). Positive lysates [LY401622] (100ug) and [LC401622] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401622]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210368 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MSTN protein (Cat# [TP310368]). The protein was produced from HEK293T cells transfected with MSTN cDNA clone (Cat# RC210368) using MegaTran 2.0 (Cat# [TT210002]).

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