

Product datasheet for RC212486

SMG7 (NM_173156) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMG7 (NM_173156) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SMG7
Synonyms:	C1orf16; EST1C; SGA56M
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC212486 representing NM_173156 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAGCCTGCAGAGCGCGCAGTACCTCCGGCAGGCAGAAGTCCTGAAGGCTGACATGACAGATTCTAAGC
TGGGTCCAGCTGAAGTCTGGACATCCAGGCAGGCTCTGCAGGACCTGTACCAGAAAATGCTAGTTACCGA
TTTGAATACGCTTTAGACAAGAAAGTAGAACAGGATCTCTGGAATCACGCCTTTAAGAATCAGATCACA
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ACAGAAACCAGACCAGCCAGGCAGAGTCTACTATAGGCATGCAGCTCAGCTTGTCCCCTCCAATGGTCA
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CGGTGATGTACCTGAGTAAGAGCTTGGAAAAGTTGAGCCCTCTCGAGAGAAAATTGGAAGAACAGTTT
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GACCCAGGCTCTTCCAGGAGCAGTGGTGGATGAAAGACAGTACATTTGGCCCTGGTTGATTTCTCTTCT
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CGCTGGCTGCAGATGGGAGCCCAGGGCTAAAATCAGTGCTATCTACAAGCCGAAATTTAAGCAACAACCTG
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC212486 representing NM_173156
 Red=Cloning site Green=Tags(s)

MSLQSAQYLRQAEVLKADMTDSKLGPAEVWTSRQALQDL YQKML VTDLEYALDKKVEQDLWNHAFKNQIT
 TLQGQAKNRANPNRSEVQANLSLFL EAAAGFYTQLLQELCTVFNVDLPCR VKSSQLGIISNKQHTHTSAIV
 KPQSSSCSYICQHCLVHLGDIARYRNQTSQAESYRHAALVPSNGQPYNQLAILASSKGDHLLTTFYYC
 RSI AVKFPFPAASTNLQKALSKALESRDEVKTKWGVSDFIKAFIKFHGHVYLSKSLEKLSPLREKLEEQF
 KRLLFQKAFNSQQLVHVTVINLFLHHLRDFSNETE QHTYSQDEQLCWTQLLALFMSFLGILCKCPLQNE
 SQEESYNA YPLPAVKVSMDWLRLRPRVQEAVVDERQYIWPWLSLLNSFHPHEEDLSSISATPLPEEFE
 LQGFLALRPSFRNLDFSKGHQGITGDKGQRRIRQQLISIGKWIADNPRLIQCENEVGLLFFITEIP
 ELILEDPSEAKENILQETSVIESLAADGSPGLKSVLSTRNL SNNCDTGEKPVVTFKENIKTREVNRDQ
 GRSFPPKEVRRDYSKGITVTKNDGKKNKRKTEKKTLEKLETKQKQNVAVQVKSQTELKTPVSEAR
 KTPVTQTPTQASNSQFIPIHHPGAFPLPSRPGFPPPTVYIPPPVAFSMGSGYTFPAGVSVPGTFLQPTA
 HSPAGNQVQAGKQSHIPYSQQRPSGPGPMNQGPQSQPPSQQLTSLPAQPTAQSTSQLQVQAL TQQQSQS
 PTKAVPALGKSPPHSGFQQYQQADASKQLWNPPQVQGPLGKIMPVKQPYLQTQDPIKLFEPQLQPPVM
 QQQPLEKMKPFMPPEYNHNPSEVKVPEFYWDSSYSMADNRSVMAQQANIDRRGKRSPGVFRPEQDPVPR
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 FEGTPWSPSLPASSDHSTPASQSPHSSNPSSLSPSPPTHNHNSVPFSNFGPIGTPDNRDRRTADRWKTDK
 PAMGGFGIDYLSATSSSESSWHQASTPSGTWTGHGSPMEDSSAVLMESLKSIWSSSMHPGPSALEQLLM
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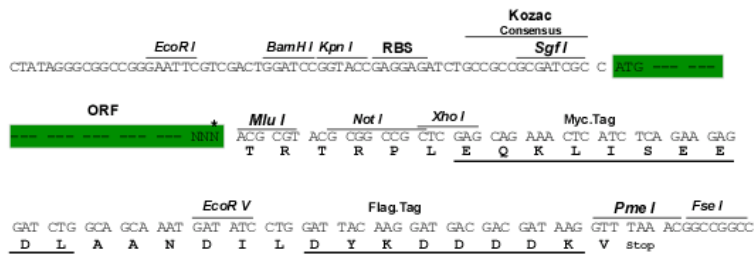
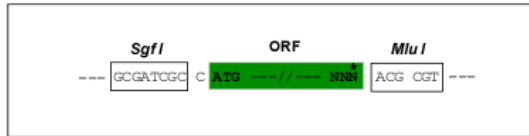
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

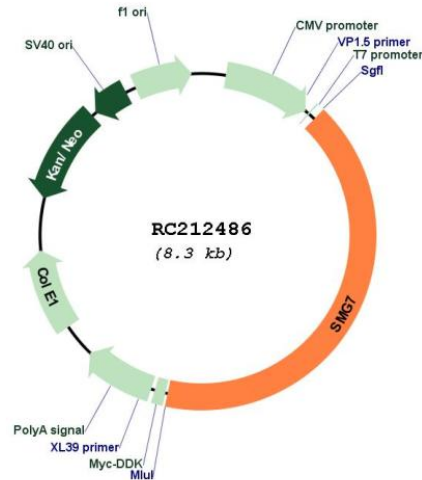
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_173156

ORF Size: 3411 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).

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_173156.3](#)

RefSeq Size: 5936 bp

RefSeq ORF: 3414 bp

Locus ID: 9887

UniProt ID: [Q92540](#)

Cytogenetics: 1q25.3

MW: 127.3 kDa

Gene Summary: This gene encodes a protein that is essential for nonsense-mediated mRNA decay (NMD); a process whereby transcripts with premature termination codons are targeted for rapid degradation by a mRNA decay complex. The mRNA decay complex consists, in part, of this protein along with proteins SMG5 and UPF1. The N-terminal domain of this protein is thought to mediate its association with SMG5 or UPF1 while the C-terminal domain interacts with the mRNA decay complex. This protein may therefore couple changes in UPF1 phosphorylation state to the degradation of NMD-candidate transcripts. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Aug 2011]