

Product datasheet for **RC220801**

SMG7 (NM_201569) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMG7 (NM_201569) 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:	>RC220801 representing NM_201569 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCCTGCAGAGCGCGCAGTACCTCCGGCAGGCAGAAGTCCTGAAGGCTGACATGACAGATTCTAAGC
TGGGTCCAGCTGAAGTCTGGACATCCAGGCAGGCTCTGCAGGACCTGTACCAGAAAATGCTAGTTACCGA
TTTGAATACGCTTTAGACAAGAAAGTAGAACAGGATCTCTGGAATCACGCCTTTAAGAATCAGATCACA
ACACTGCAAGGCCAGGCAAAGAATCGAGCAAATCCGAATCGGAGTGAAGTTCAGGCAAACCTTTCTCTGT
TCCTAGAGGCAGCTAGTGGCTTCTATACTCAGTTATTACAAGAACTGTGTACAGTATTTAATGTAGATT
ACCATGCCGTGTGAAGTCTTCCCAATTGGGAATTATCAGCAATAAACAGACGCATACCAGCGCCATAGTG
AAGCCACAGTCTAGCTCCTGTTCTATATCTGCCAGCACTGCCTCGTCCACCTTGGAGACATTGCTCGAT
ACAGAAACCAGACCAGCCAGGCAGAGTCCACTATAGGCATGCAGCTCAGCTTGTCCCCTCCAATGGTCA
GCCTTATAATCAGTTGGCTATCTTAGCTTCTTCCAAAGGAGACCATCTGACCACAATTTCTACTACTGC
AGAAGCATTGCTGTGAAGTTCCTTTCCAGCTGCCTCCACTAATCTGCAAAAAGCACTTTCTAAAGCAC
TGGAAAGCCGAGATGAGGTGAAAACCAAGTGGGGTGTTCGACTTCATCAAGGCCTTTTAAATTTCCA
CGGTGATGTACCTGAGTAAGAGCTTGGAAAAGTTGAGCCCTTCGAGAGAAAATTGGAAGAACAGTTT
AAGAGGCTGCTATTCCAAAAGCTTTCAACTCTCAGCAGTTAGTTCATGTCACTGTCATTAACCTGTTTC
AACTTCATCACCTTCGTGACTTTAGCAATGAAACCGAGCAGCACACTTATAGCCAAGATGAGCAGCTATG
TTGGACACAGTTGCTGGCCCTTTATGTCTTTTCTTGGCATCCTGTGCAAGTGCCTCTACAGAATGAG
TCTCAGGAGGAGTCTACAATGCCTATCCTCTTCCAGCAGTCAAGGTCTCCATGGACTGGCTAAGACTCA
GACCCAGGGTCTTTCAGGAGGCAGTGGTGGATGAAAGACAGTACATTTGGCCCTGGTTGATTTCTCTTCT
GAATAGTTTCCATCCCCATGAAGAGGACCTCTCAAGTATTAGTGCACACCACTCCAGAGGAGTTTGAA
TTACAAGGATTTTGGCATTGAGACCTTCTTTCAGGAAGTGGATTTTCCAAAGGTCAACAGGGTATTA
CAGGGGACAAAGAAGGCCAGCAACGACGAATACGACAGCAACGCTTGATCTCTATAGGCAAATGGATTGC
TGATAATCAGCCAAGGCTGATTCAGTGTGAAAATGAGGTAGGGAATTTGTTGTTATCACAGAAATCCCA
GAATTAATACTGGAAGACCCAGTGAAGCCAAAGAGAACCTCATTCTGCAAGAAACATCTGTGATAGAGT



[View online >](#)

CGCTGGCTGCAGATGGGAGCCCAGGGCTAAAATCAGTGCTATCTACAAGCCGAAATTTAAGCAACAACCTG
TGACACAGGAGAGAAGCCAGTGGTTACCTTCAAAGAAAACATTAAGACACGAGAAGTGAACAGAGACCAA
GGAAGAAGTTTTCTCCCAAAGAGGTAAAATCCCAGACAGAACTAAGAAAGACTCCAGTGTCTGAAGCCA
GAAAAACACCTGTAACCTCAAACCCCACTCAAGCAAGTAACTCCCAGTTCATCCCCATTCATCACCCCTGG
AGCCTTCCCTCCTTCCCAGCAGGCCAGGGTTCCGCCCCCAACATATGTTATCCCCCGCCTGTGGCA
TTTTCTATGGGCTCAGGTTACACCTTCCCAGCTGGTGTCTGTCCCAGGAACCTTCTTCAGCCTACAG
CTCACTCTCCAGCAGAAACCAGGTGCAAGCTGGGAAACAGTCCCACATTCCTTACAGCCAGCAACGGCC
CTCTGGACCAGGGCCAATGAACCAGGGACCTCAACAATCACAGCCACCTTCCCAGCAACCCCTTACATCT
TTACCAGCTCAGCCAACAGCACAGTCTACAAGCCAGCTGCAGGTTCAAGCTCTAACTCAGCAACAACAAT
CCCCTACAAAAGCTGTGCCGGCTTTGGGAAAAGCCGCCTCACCCTCTGGATTCCAGCAGTATCAACA
GGCAGATGCCTCCAAACAGCTGTGGAATCCCCCTCAGGTTCAAGGCCATTAGGGAAAATATGCCTGTG
AAACAGCCCTACTACCTCAGACCCAAGACCCATAAACTGTTGAGCCGTATTGCAACCTCCTGTAA
TGCAGCAGCAGCCTCTAGAAAAAAAATGAAGCCTTTTCCCATGGAGCCATATAACCATAATCCCTCAGA
AGTCAAGTCCCAGAATTCTACTGGGATTCTTCTACAGCATGGGTGATAACAGATCTGTAATGGCACAG
CAAGCAAAATAGACCGCAGGGCAAACGGTACCAGGAGTCTCCGTCCAGAGCAGGATCTGTACCCA
GAATGCCGTTTGGAGACCCCAAGAGCTCCCTCTGCTTCTCCGGACCTGTTAAAGAGTCTGGCTGCCTT
GGAGGAAGAGGAAGAGCTGATTTTTCTAACCTCCTGATCTTTACCCGGCTCTGCTGGGGCCTCTCGCC
TCTTCTTCTGGACGAAGCCTTTTTAAATCCTTATTGGAGAAGCCCTCAGAGCTCATGTACATTCATCCT
CTTTCCTGTCCCTCACCGGATTCTCTCAATCAGGAAAGATACCCAAATAATAGTATGTTCAATGAGGT
ATATGGGAAAACCTGACATCCAGCTCCAAAGCAGAACTCAGTCCCTCAATGGCCCCCAGGAAACATCT
CTGTATTCCTTTTTGAAGGGACTCCGTGGTCTCCATCACTTCTGCCAGTTCAGATCATTCAACACCAG
CCAGCCAGTCTCCTCATTCTCTAACCACAGCCTACCCAGCTCTCTCCAACACACAACCATAATTC
TGTTCCATTCTCAATTTTGGACCCATTGGGACTCCAGATAACAGGGATAGAAGGACTGCAGATCGGTGG
AAAAGTATAAGCCAGCCATGGGTGGGTTTGGCATTGATTATCTCTCAGCAACGTATCCTCTGAGAGCA
GTTGGCATCAGGCCAGCACTCCGAGTGGCACCTGGACAGGCCATGGCCCTTCCATGGAGGATTCTCTGC
TGTCTCATGGAAAGCCTAAAGAAGCAACAGCATGGGGTCCAGCAGTTGGGGCCAAAAGACAGTCTGAA
GAGGAAGGAAGCAGCAGTATCTGCGTAGCCACAGAGGGCCAGGCCCTGCCAGCTGCAGTCTCCCAG
CCTCCACTTTCAGAGTGAATTC AAGGCAGCACGGACATGTGCCATCAGGCACAGAAGAAAACACGACG
TCGTCCATTTTGAAGAGACGAAAGAAAGGAAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC220801 representing NM_201569
 Red=Cloning site Green=Tags(s)

MSLQSAQYL RQAEVLKADMTDSKLGPAEVWTSRQALQDL YQKML VTDLEYALDKKVEQDLWNHAFKNQIT
 TLQGQAKNRPANRSEVQANLSLFL EAA SGFY TQLL QELCTVFNVDLPCR VKSSQLGIISNKQTH TSAIV
 KPQSSSSYICQHCLVHLGDIARYRNQTSQAESYRHA AQLVPSNGQPYNQLAILASSKGDHLTTIFYYC
 RSI AVKFPFPAASTNLQKALSKALESRDEVKTKWGVSDFIKAFIKFHGHVYLSKSLEKLSPLREKLEE QF
 KRLLFQKAFNSQQLVHVTVINLFLHHLRDFSNETE QHTYSQDEQLCWTQLLALFMSFLGILCKCPLQNE
 SQEESYNAYPLPAVKVSMDWLR LRP RVQEAVVDERQYIWPWLSLLNSFHPHEEDLSSISATPLPEEFE
 LQGFLALRPSFRNLDFSKGHGIGITGDK EGQRRIRQRLISIGKWIADNQPRLIQCENEV GKLLFITEIP
 ELILEDPSEAKENLILQETS VIESLAADGSPGLKSVLSTRNL SNNCDTGEKPVVTFKENIKTREVNRDQ
 GRSFPPKEVKSQTEL RKTVPSEARKTPVTQTPTQASNSQFIPIHHPGAFPPLPSRPGFPPTVYIPPPVA
 FSMGSGYTFPAGVSVPGTFLQPTAHSPAGNQVQAGKQSHIPYSQQRPSGPGPMNQGPQSQPPSQPLTS
 LPAQPTAQSTSQLQVQAL TQQQSPTKAVPALGKSPPHSGFQQYQQADASKQLWNPPQVQGPLGKIMPV
 KQPYLQTQDP IKLFEP SLQPPVMQQPLEKKMKPFMEPYNHNPSEVKVPEFYWDSSYSMADNRSVMAQ
 QANIDRRGKRSPGVFRPEQDPVPRMPFEDPKSSPLLPPDLLKSLAAEEEEELIFSNPPDLYPALLGPLA
 SLPGRSLFKSLLEKPELSMSSSFLSLTGFSLNQERYPNNSMFNEVYGNL TSSSKAELSPSMAQETS
 LYSLFEGTPWSPSLPASSDHSTPASQSPHSSNPSSLSPSPPTHNHNSVPF SNFGPIGTPDNRDRRTADR
 KTDK PAMGGFIDYLSATSSSESWHQASTPSGTWTGHGSPMEDSSAVLMESLKKQHQGVQQLGPKRQSE
 EEGSSSICVAHRGPRPLPSCSLPASTFRVKFKAARTCAHQAKKTRRRPFWKRKKGK

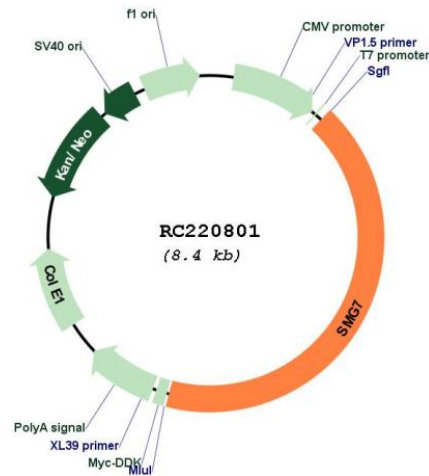
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_201569

ORF Size: 3534 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_201569.3](#)

RefSeq Size: 4789 bp

RefSeq ORF: 3537 bp

Locus ID: 9887

UniProt ID: [Q92540](#)

Cytogenetics: 1q25.3

MW: 131.6 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]