

## Product datasheet for MR223777

### Smg7 (NM\_001160256) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Smg7 (NM\_001160256) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Smg7  
**Synonyms:** 9430023P16Rik; mKIAA0250  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >MR223777 representing NM\_001160256  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGAGCCTGCAGAGCGCGCAGTATCTCCGGCAGGCAGAAGTCTGAAGGCTGAAATGACAGATTCTAAGC  
 TGGTCCGGCTGAGGTCTGGACATCCAGCAAGCTCTGCAGGACTTGACCAGAAAATGCTAGTTACTGA  
 TCTGGAATACGCTTTAGACAAGAAAGTAGAACAGGATCTCTGGAATCATGCCTTTAAGAATCAGATCACA  
 AACTGCAAGGCCAAGCCAAGAAATCGAGCAAACCCAAATCGAAGTGAAGTCCAGGCAAACCTTTCTCTGT  
 TCCTAGAGGCAGCTAGCGGCTTCTATACTCAGTTATTACAGGAACTGTGTACGGTGTAAATGTAGATT  
 GCCATGCCGTGTGAAGTCTTCCAGTTGGGAATTATTAGCAATAAACAGACGCACAGCAGCACCATAGTG  
 AAGCCACAGTCTAGCTCCTGCTCCTACATTTGCCAACACTGCCTCGTCCACCTTGGAGACATTGCTCGAT  
 ACAGAAATCAGACTAGCCAGGCAGAGTCTACTATAGGCATGCAGCTCAGCTTGTCCCCTCCAATGGTCA  
 GCCTTACAATCAGTTGGCTATCTTAGCTTCTTCCAAAGGAGACCACCTGACCACAATTTCTACTACTGC  
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 TGGAAAGCCGGGATGAGTTGAAAACCAAGTGGGTGTTTCTGACTTCATCAAGGCCTTTATAAATTTCCA  
 CGGTATGTATACCTGAGTAAGAGTTTGGAAAAGCTGAGCCCTTTCGAGAGAAGTTGGAAGAACAGTTT  
 AAGAGACTGCTGTTCCAAAAGGCTTTCAACTCTCAACAGTTAGTTCATGTCACTGTCATTAACCTGTTTC  
 AACTTCATCATCTTCGTGACTTTAGCAATGAAACAGAGCAACACAGTTACAGCCAAGATGAACAGCTGTG  
 TTGGACACAGTTGCTGGCCCTTTATGTCTTTTCTCGGCATCCTGTGCAAATGCTCTCCAGAATGAT  
 TCTCAGGAGTCCAACAATGCCTACCCCTTCTGCAGTCAAGGTCTCCATGGACTGGCTAAGACTCCGAC  
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 TTAATACTAGAAGACCCAGTGAAGCCAAGAGAACCTCATCCTACAAGAAACATCTGTGGTAGAGTCAC



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TGGCTACGGATGGGAGCCAGGACTGAAATCAGTGTCTACAGGCCGAAATCCAAGCAACAGCTGTGA  
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 AGGCTAGCACTCCGAGTGGCACCTGGACAGGCCACGGCCCTCCATGGAGGATTCCTCTGCTGCTCAT  
 GGAAAGCCTAAAGTCTATCTGGTCCAGTTCATGATGCATCCTGGGCCCTCCGCTCTGGAGCAGTTGTTA  
 ATGCAGCAGAAGCAGAAACAGCAGCGGGGACAAGGTGCCATGAACCTCCACAC

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 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR223777 representing NM\_001160256  
 Red=Cloning site Green=Tags(s)

MSLQSAQYLRAEVLKAEMTDSKLGPAEVWTSRQALQDL YQKML VTDLEYALDKKVEQDLWNHAFKNQIT  
 TLQGQAKNRANPNRSEVQANLSLFL EAAAGFYTQLLQELCTVFNVDLPCR VKSSQLGIISNKQTHSSTIV  
 KPQSSSCSYICQHCLVHLGDIARYRNQTSQAESYRHAALVPSNGQPYNQLAILASSKGDHLTTIFYC  
 RSI AVKFPFPAASTNLQKALSKALESRDELKTKWGVSDFIKAFIKFHGHVYLSKSLEKLSPLREKLEEQF  
 KRLLFQKAFNSQQLVHVTVINLFLHHLRDFSNETE QHSYSQDEQLCWTQLLALFMSFLGILCKCPLQND  
 SQESNNAYPLPAVKVSMDWLRLRPRVFQEA VVDERQYIWPWLSILLNSFHPREDDL SNTNATPLPEEFEL  
 QGFLALRPSFRNLDL SKGHQGITGDKGQRRIRQRLISIGKWIADNPRLIQCENEVGLLFFITEIPE  
 LILEDPSEAKENLILQETS VVESLATD GSPGLKSVLSTGRNPSNSCDSGEEKPVVTFKENIKPREVNQGRS  
 FPPKEVKSQTELKTPVSEARKTPVTQTPSQT SNSQFIPIHHPGAFPPPSRPGFPPPTVYIPPPVAFSM  
 GSGYTFPAGVSVPGTFLQSTAHSPAGNQVQAGKQSHIPYSQQRPSGPGPMNQGPQSQPPS QPPLSLPA  
 QPTAQSTS QLVQALAQQQSPTKVIPALGKSPPHSGFQQYQQADASKQLWNPPQVQSPLGKIMPVKQS  
 YYLQTQDPIKLFEP SLQPPVIQQPLEKKMKPFMEPYNHNPSEVKVPEFYWDSSYSMADNRAVMAQQPN  
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 LFEGTPWSPSLPASSDHSTPASQSPHSSNPSSLSPSPPTHNHNSAPFSNFGPIGTPDNRDRR PADRWKTD  
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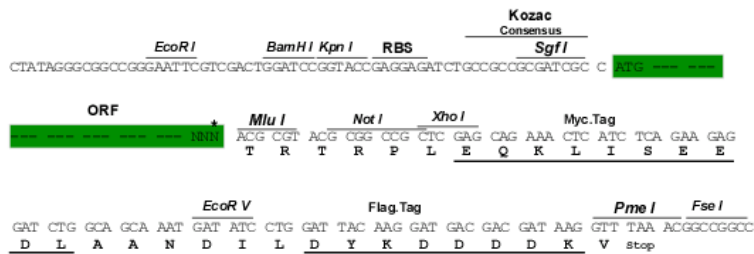
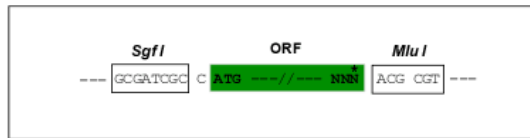
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

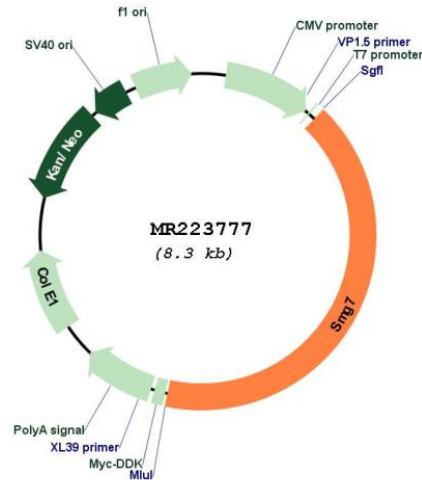
Cloning Scheme:

Cloning sites used for ORF Shutting:



\* The last codon before the Stop codon of the ORF

## Plasmid Map:



ACCN: NM\_001160256

ORF Size: 3414 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\\_001160256.1](#), [NP\\_001153728.1](#)

RefSeq Size: 5867 bp

RefSeq ORF: 3417 bp

Locus ID: 226517

UniProt ID: [Q5RIH6](#)

Cytogenetics: 1 G3

**MW:** 127.3 kDa

**Gene Summary:** Plays a role in nonsense-mediated mRNA decay. Recruits UPF1 to cytoplasmic mRNA decay bodies. Together with SMG5 is thought to provide a link to the mRNA degradation machinery involving exonucleolytic pathways, and to serve as an adapter for UPF1 to protein phosphatase 2A (PP2A), thereby triggering UPF1 dephosphorylation (By similarity). [UniProtKB/Swiss-Prot Function]