

## Product datasheet for MC223217

### Smg5 (NM\_178246) Mouse Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Smg5 (NM\_178246) Mouse Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Smg5  
**Synonyms:** BC024683; mKIAA1089  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**Fully Sequenced ORF:** >MC223217 representing NM\_178246  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGAGCCAAGGCCCTCCTCCAGGGGAGAGCAGCGAACCCGAGGCCAAAGGTCTCCACACCAAGCGGCTTT  
ACCGGGCTGTGGTGGAGGCTGTGCATCGGCTAGATCTCATCCTTTGCAACAAAGCTGCTTATCAGGAAGT  
GTTCAAACCAGAGAACGTTAGCCTGAGGAACAAGCTACGAGAGCTCTGTGTGAAGCTTATGTTCTTGCAT  
CCAGTAGACTATGGGAGGAAGGCTGAGGAAGTCTGTGGAGAAAGGTATACTATGAAGTTATCCAACCTTA  
TCAAGACTAACAAAAAGCACATCCACAGTCGGAGCACCTTGGAATGTGCCTACAGGACTCATCTGGTCCG  
TGGCATTGGCTTCTACCAGCATCTCCTTCTCTATATCCAGTCCCCTACCAGCTGGAAGTACAGTGTCTGC  
ATCGACTGGACTCACGTCACCGATCCCCTCATGGGATTCAGGAAGCCAGTATCTGCTTCAGGAAAGGAGA  
TGGATTGGGCACAAATGGCTTGCCACCGATGCCTGGTGTACCTGGGGATCTGTCACGCTATCAGAATGA  
GTTGGCTGGTGTGGACACCGAGCTGCTAGCTGAGAGATTCTACTATCAAGCCTTGTCAAGTGGCTCCCCAG  
ATTGGAATGCCCTTCAACCAGCTGGGTACCCCTTGAGGCAGCAAGTATTACAACGTGGAAGCCATGTATT  
GCTACTTGGCTGCATCCAGTCGGAAGTGTCTTTGAGGGAGCCTATGGGAACCTCAAGAGACTATATGA  
CAAGGCAGCCAAAATGTACCACCGATTGAAGAAGTCTGAGACCAGGAAGCTCTCCCTAGCAAAAAGCGA  
TGCAAAGACATTAAGAGTTGTTGGTGAACCTCATGTACCTACAAAGCCTGTTACAGCCAAAAGTAGCT  
CCGTGGACTCAGAACTGACCTCACTCTGCCAGTCAGTCCCTAGAGGATTTCAACCTCTGCCTCTTCTACCT  
GCCCTCTCACCAACCTTGGTCTAACCAACGAGGATGAGGAGGAGTGTGAAAGTGGATATGCTTTCCTC  
CCCACCTGCTCATCTTTCAGATGGCCATCATCTGCCTCATGGGTGTGCACAGTTAAAGAGAGCAGGAT  
CCAAGCATTATAGTGCAGCCATTGCTTTCACCCTGGCCCTCTTTCCACCTTATCAATCATGTCAACAT  
ACGGCTGCAGGCGGAAGTGAAGAGGGCGAGAACCCTGTCTCAGCTTTTCAGAGTATGGCAGAGATGAA  
CCAGAGTCAAAAAGACTAGAAAAAGAGGAGCCAGAGCCTGAGCCTCCACTGTGGTACCCCAAGCTG  
ATGAGGGCAGAAAGAGCCGTAAGCACTCCGACTCTTTGTCTACGTCTGCGCCGCCACCATCTCTCC  
TAAAGCTGGTGTGACAGTGACCTGAGTGAGGGTTTTGAATCTGACTCTAGCCATGACTCTGCCAGGCC  
AGTGACGGCTCAGACAGTGGCTCTGATAAGAGCCTGGAAGGCAGGGGCACTGCTTTTGTGTCAGAGACAG



ACTCAGAAATGAACAGCCAGGAGTCCCGGTGACACCTGGAAGATATGGAGGATGAGGAGGGGACAAGATC  
 TCCAGCCCAGGAGCCCCCTCAGGCCAGATCAGAGGTTCCAGATCCCTCAATGGCCCCCTGGGCCCCAGT  
 GAAGCAAGCATTGCCAGCAATTTACAAGCCATGTCCACCCAGATGTTCCAGACCAAGCGCTGCTCCGAC  
 TGGCTCCCACTTTTCAGCAACCTGCTCCTGCAGCCCACCACGGAACCTAACAGTGTGGCCAGTCACAGGCC  
 TTGTGTCAACGGGGATATGGACAAGCCTTTAGAACCAGCCTCTGAGGATGGCTCCGAGTCAGAGGGGAGC  
 GAGTCCAGCAACCGCTCCTGTGCAACGAGCGCAGCCTTCAGGAGAAGCTGCAGGCCCTGATGGCTGAGG  
 GCCTCCTCCTGCTGTGAAGGTCTTCTGGACTGGCTGCGAACCAACCCCTGACCTCATCATCGTGTGTGC  
 ACAGAGCTCTCAAAGTTTGTGGAACCGCCTGTCTGTGTTGCTGAATCTGTTGCCAGCATCTGCTGAGCTC  
 CAGGATTCTGGCCTGGCTCTGTGTTCCGAAGTCCAAGGTCTCCTTGAAGGCTGCGAGCTGCCTGACCTCC  
 CTGCCAGCCTGCTGCTCCAGAGGACATGGCACTGCGTAACCTACCTCCTCTGCGGGCTGCTCATAGACG  
 CTTTAACTTTGACGCAGATCGGCCCTGCTCAGTGCTTTAGAGGAGTCGGTGGTGCATCTGCTGTATC  
 CGCAGCTTTGGGCACTTTGTTGCTCGCTTACAAGGCAGCATCCTGCAGTTCAATCCAGAGGTGCGCATCT  
 TCGTCAGCATTGCTCAGTCTGAGCAGGAGAGCCTGCTGCAGCAGGCCAGGCCAGTTTCGTATGGCAGA  
 GGAGGAGGCTCGCGGAACAGGCTCATGAGAGACATGGCTCAGCTACGATTACAGCTCGAGGTCTCCCAA  
 CTGGAAGGGAGCCTACAGCAGCCAAAGCTCAGTCAGCCATGTCTCCCTACCTCATCCCTGACACCCAGG  
 CCCTCTGTACCACTCCCTCTTATCCGCCAGCTTGCCACCAGTGGCCGCTTCATCATCATTCATCCAAG  
 GACAGTGATTGATGGCCTGGATTTGCTGAAGAAAGAACAGCCAGGGGCCAGGGATGGCATCCGGTACCTG  
 GAGGCAGAGTTTAAAAAGGGAAACAGATACATTCGCTGCCAGAAGGAGGTGGGAAAGAGCTTTGAGCGGC  
 AATAACTGAAGAGGCAGGATGCAGATGCCTGGACTCTCTATAAGATCCTGGACAGCTGCAGACAGCTAAC  
 TCTGGCCCAGGGGGCAGGGGAGGAGGCCAAGTGGCATGGTGACCATTATCACAGGCCTTCATTTGGAC  
 AGCCCCAGTGCATCTCTGGGCCATGCAGGCTGCCCTGCAAGCTGTGCCCATGCCAGTGTGGACGTCA  
 AGAACGTTCTAGACTTCTACAGGCAGTGAAGGAGATTGGTTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

SgfI-MluI

**ACCN:**

NM\_178246

**Insert Size:**

3054 bp

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_178246.3](#), [NP\\_839977.2](#)

**RefSeq Size:**

4447 bp

**RefSeq ORF:**

3054 bp

Locus ID: 229512

UniProt ID: [Q6ZPY2](#)

Cytogenetics: 3 F1

**Gene Summary:** Plays a role in nonsense-mediated mRNA decay. Does not have RNase activity by itself. Promotes dephosphorylation of UPF1. Together with SMG7 is thought 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. Necessary for TERT activity (By similarity).[UniProtKB/Swiss-Prot Function]