

Product datasheet for **MG211977**

Smg6 (NM_001002764) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smg6 (NM_001002764) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Smg6
Synonyms:	AI317223; AU041178
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG211977 representing NM_001002764 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGAGGGGTTGGAGCGTGTGCGGATCTCCGCATCGGAACGCGAGGGATCCTGGCCACTCTGGCTC
CGCAGGCCGGGAGCAGAGAAAACATGAAGGAACAAAGGAACCCAGACAGCGCAAAGATAATAGGCGTCC
AGATTTGGAAATCTATAAGCCTGGACTTTCTCGACTAAGGAACAGACCTAAAACCTAAGGAGGCTTCTGGG
AATGAGGAATTTAAGGATGAGATAGTAAATGACAGAGATTCCTTCTGCTGTTGGGAATGATACACAGCTTA
TTCAAGTTTGCAAGGAATTGGACAGCCAACAGCAAAATGGCCCTATAGATGCAGAAAATAGTCAGGCACA
GGAAACTTTTCCAAGACTGTTGGACTAGAGGACCGAAGTCTAAAGATCATCAAAAAGAAGCAAGAAACCA
GACCTGCAGATCTACCAGCCTGGAAGGCGGTTGCAGACCATTACCAAAGAGTCAGCAGGCAGGGCAGATG
AAGAAGAGATCCTCAACCAAGTGGAGCAGTTGAGGATAGAGGAGGATGAGTGAAGGGAGAAGCTATAAA
AGAAGAAGTTAATAACAAACCGGATAAAAACCGAGATAGAAAAGCACCAAAGTAATGACCGTGAAGAACT
GCCAAGGGAGAAAAGGGAAAAAGATTGAAAAGGGGGAGGGGTCAAAGAAGGTGGCTGATGACTCTGTCC
CAGGAAAGCCTGGCTCTGTAAAGAGATACTCGAGATCAGACAAGAGAAGGAATCGCTACCGCACTTGCG
TACCAGCTCAGCTGGTAGCAACAACAGTCTGAGGGAGCTGGCCTGACCGATAATGGATGTCGCCGCGCG
CGCCAGGATCGGGCCAAGGAGAGGCCACGACTGAAGAAGCAGGTATCTTTGTCCTCAACTGATTCCTTAG
ATGAGGACAGAGTTGATGAGCCTGATGTCTAGGGTCCAGGAGGAGCTCAGAAAAGGAAGAAGCATTTAGA
AAGAAATTGGTCTGGCTGTGGTGAAGGGTGAACAGAAAAGCAATGGTAAAGAAAACCGAAGTGCCTTCGT
GTCACCTTTGATGCAGAAACCATGAGTAAAGACTCCCCTGTGGTGAAGTCAAGAGATAATGTGGATA
GAATGAAGTCTGACAAAGGCCAAGCAGTGGGGTAAAGGGCTCTGAGAAGCAGGAGCTCAGACACCCGAG
ACAAGAACTTCGAGATCGTGGTCTGATCCTGATTCTGCCTGCCACACTGCCCTATCTGTCAGTTCA
TCAGGTTCTCCGAGTCTACACCTTTGGGACCTCGACTTTTATTTGGATCTGGTAGTAAGGGATCTCGGA
GTTGGGGCGTGGAGGCACTACCCGCCACTATGGGACCAACAATCCTGACCAGAAGCCTGCCCTAAA
AAGCCAGACACCTCAGCTACATTTCTTGACACTGATGATGAAATTAGCCCTACATCTTGGGGTATTCA



[View online »](#)

CGTCAGGCCCAAGCATCTTACTATAAAATTTCAAACCTCTGATAACCCCTATTATTACCCTCGGACACCAG
GCCCTGCCTCTCAGTATCCCTATGCAGGCTATAGCCCTCTGCAGTACCCAGTAGGCCCTACAAATGGTAT
GTATCCAGGGGCTTACTACCCGGGCTATCCTGCCCCCTCAGGACAATATGTGTGTAGCCCTCTCCCTGCT
AGCACCATGAGTCTGAGGAAATAGAACAGCACGTGCGGAACATGCAGCAACAGGAGCTCCATCGGCTTC
TCCGAGTGGCTGACAACCAGGAATGCAGCTCAGCAACCTGCTTCCAGGGACCGCATCAGCACTGAGGG
CATGGAGAAGATGGCTCAGCTCAGAACTGAACTACTGCAGCTGTACGAGCGCTGATTCTATTAGATATT
GAATTCTCCGACAGTCAAGATGTAGATCAGATCCTGTGGAAGAAGCGTTTCTATCAGGTGATTGAGAAGT
TCAGGCAGCTTCTCAAGGATCCAACAGTGAGAACCAGAGCAGATTCCGGAACAGACTCTTGAGACTCTT
AGATGAGGGCAGTGACTTCTTTGATAGTTTGCTTCAGAAACTACAGGTTACTTACAAGTTCAAACCTGGAG
GACTACATGGATGGGCTTGCATTCAAGCAAGCCTTTACGAAAAACAGTGAAATATGCCTTGATCAGTG
CTCAACGAAGTATGATTTGCCAAGGAGATATCTTAGGTATCGGGAGCAAGCCAACGATACAGCAAACCTA
TGGGAAGGCTCGCAGTTGGTATCTGAAGGCTCAGCACATTGCTCCCAAGAATGGGCGCCCTATAACCAG
TTGGCTCTACTGGCAGTGTATACGAGGAGGAAGCTTGATGCTGTATTACTATATGCGCAGTTTAGCAG
CCAGCAACCTATCCTGACTGCCAAGGAGAGTCTCATGAGTTTATTTGAAGAGACTAAACGAAAGGCTGA
ACAGATGGAAGAAGCAGCATGAGGAATTTGATATGAGCCCTGATAAGTGGCGAAAAGGAAAGAAGTCT
ACTTTCCGGCATGTTGGGGATGACACTACTCGCCTGGAGATTTGATTTCATCCATCACATTCTCGGTCTG
CCCAGGGCACTGAGTCTGGGAAGGATTCTGAGCAGGAGAATGGTCTGGGCAGCCTGAGTCCCAGTGATCT
GAACAAAAGGTTTCATCCTCAGTTTTCTCCATGCCATGGGAAGCTGTTTACCCGGATTGGGATGGAGACA
TTCCCTGCAGTGGCTGAGAAGGTCCTTAAGGAGTTCAGTATTGCTGCAGCATAGCCCATCTCCTATTG
GAAGTACCCGATGCTGCAGCTTATGACCATCAACATGTTTCCCGTGCATAACTCCCAGTTGAAAGACTG
CTTCTCAGAGGAGTGTGTTCTGTGATCCAGGAACAAGCTGCATCCTTGGGCTTGGCTATGTTTTCTCTA
CTGGTCCAGCGCTGCACATGCCTACTTAAGGACTCTGCTAAAGCTCAGCTGTCTCTCCTGAGGACCAAG
AGGACCAAGATGACATCAAGGTATCTTCTTCCGTCGTCGCGGACCTGAAGGAGCTGCTCCCAGTGTGAAAGT
CTGGTCTGATTGGATGCTTGGCTACCCAGACACCTGGAATCCTCCACCCACATCTTTGGATCTGCCCTTG
CAGGTTGCTGTGGATGTCTGGTCAACACTAGCTGATTTCTGTAACATACTGACTGCAGTCAATCAGTCTG
AGGTGCCACTGTACAAGGACCCAGATGATGACCTCACCTGCTTATCCTGGAAGAGGATCGGCTTCTCTC
TGGCTTTGTCCCCTTGTGGCTGCCCTCAGGACCCCTGCTACGTGGAGAAAACCTCGGATAAGGTTATT
GCAGCTGACTGCAAAAGGGTCACAGTGTGAAGTATTTTCTGGAAGCCCTTTGTGGACAAGAAGAGCCTC
TGCTGGCATTCAAGGGTGGAAAATATGTGTCAGTGGCACCCGTCAGACACCATGGGAAAGGAAATGGG
AAGCCAAGAGGGAAAACAACCTGGAAGATGAGGAAGAAGATGTGGTATTGAAGACTTTGAGGAAGATTCA
GAGGCTGAAGGCAGTGGGGTGAGGATGACATCAGGGAACCTCGGGCCAAGAAGCTGGCTCTAGCAAGGA
AGATAGCTGAGCAGCAGGCTCGCCAGGAAAAGATCCAGGCTGTTTTGGAAGACCAGAGTCAGATGAGGCA
GATGGAGCTGGAGATCAGACCCTTGTTCCTCGTACCAGATACCAACGGCTTCATTGACCCTGGCCAGT
CTGGCTCGGCTGCTGGAGAGCAGGAAGTACATCCTGGTGGTGGCCCTCATCGTGATCAATGAGCTGGACG
GCCTCGCCAAAGGGCAGGAGACAGACCACCGGGCTGGGGGCTATGCCCGTGTGGTGAAGAAAAGGCCCCG
AAAATCCATTGAGTTCCTCGAACGGAGATTTGAGAGTCCGGACTCCTGCCTGCGGGCCTTGACCAGCCGT
GGCAATGAACTTGAATCTATCGCCTCCGAAGTGAGGACATTACTGGACAGCTGGGTAACAACGATGACC
TGATCCTCTCTTGTGCTGCACTACTGCAAGACAAGGCTAAGGATTACATGCCACCAGCAAAGAGGA
GCCAATCCGCCTGTTACGGGAGGTGGTGTGCTGACCGATGATCGGAACCTTCGTGTAAGGCGCTGACA
AGGAATGTGCTGTGAGGACATCCCAGCCTTCTTACGTGGGCCAGGTGGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG211977 representing NM_001002764
 Red=Cloning site Green=Tags(s)

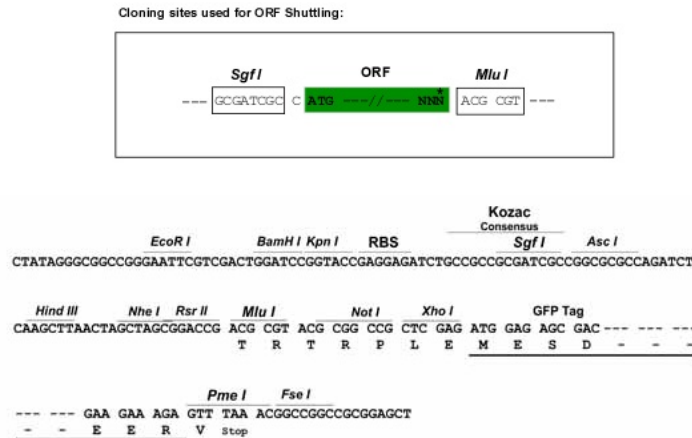
MAEGLERVRIASSELRGILATLAPQAGSRENMKELKEPRQRKDNRRPDLEIYKPLSRLRNRPKTKEASG
 NEEFKDEIVNDRDSSAVGNDTQLIQVCKELDSQQQNGPIDAENSAQETFPKTVGLEDRSLKIIKRSKPP
 DLQIYQPGRRLLQITKESAGRADEEEILNQVEQLRIEEDCKGEAIKEEVNKNPKDTEIEKHQSNDRVRT
 AKGEKGGKIEKGEKSKVADDSVPGKPGSVKRYRSRDKRRNRRTCTSSAGSNNSAEGAGLTDNGCRRR
 RQDRAKERPRLKKQVLSSTDSLDEDRVDEPDVLSRRSSERKKHLERNWSGCGEGEQKSNKGNRSALR
 VTFDAETMSKDSPVVRSVKDNVDRMKS DKGSSGGK GSEKQELRHPRQELRDRGRGILILPAHTALSVSS
 SGSPSTPLGPRLLFGSGSGKSRSWGRGGTTRRLWDPNPDQKPAKLSQTPQLHFLDDEISPTSWGDS
 RQAQASYKFNQSDNPYYYPRTPGPASQYYPYAGYSPLQYPVGPNTGMPYGAAYPGYPAPSGQYVCSPLPA
 STMSPEEIEQHVRNMQQQLHRLLRVADNQELQLSNLLSRDRISTEGMEKMAQLRTELLQLYERICLLDI
 EFSDSQNVQDILWKNFYQVIEKFRQLLKDPSNENPEQIRNRLLELLDEGSDFFDSSLQKLQVTYFKLE
 DYMDGLAIRSKPLRKTVKYALISAQRSMICQGDISRYREQANDTANYGKARSWYLKAQHIAPKNGRPYNQ
 LALLAVYTRRKLDAVYYMRS LAASNPI LTAKE SLM SLFEETKRKAEQMEKKQHEEFDMSPDKWRKGGKS
 TFRHVGGDTTRLEIWIHPSHSRS AQGTESGKDSEQENGLGSLSPSDLNKRFLSFLHAHGKLFTRIGMET
 FPAVAEKVLKEFQVLLQHSPSPIGSTRMLQLMTINMFAVHNSQLKDCFSEECRSVIQEQAASLGLAMFSL
 LVQRCTCLLKDSAKAQLSSPEDQEDQDDIKVSSFVVDLKEKLLPSVKVSDWMLGYPDTWNPPTSLDLPL
 QVAVDVWSTLADFCNILTAVNQSEVPLYKDPDDDLTLLILEEDRLLSGFVPLLAAPQDPCYVEKTSKVI
 AADCKRVTVLKYFLEALCGQEELAFKGGKYVSVAPVPTMGKEMGSQEGKQLEDEEEDVVIEDFEEDS
 EAEGSGGEDDIRELRAKKLALARKIAEQRRQEKIQAVLEDSQMRQMELEIRPLFLVPDNGFIDHLAS
 LARLLESRYIILVVPLIVINELDGLAKGQETDHRAGGYARVVQEKARKSIEFLERRFESRDSCLRALTSR
 GNELESIAFRSEDITGQLGNDDLLILSCCLHYCKDKAKDYMPSTKEEPIRLLREVLLTDDRNLRVKALT
 RNVPPVRDIPAFLTWAQVG

TRTRPLE - GFP Tag - V

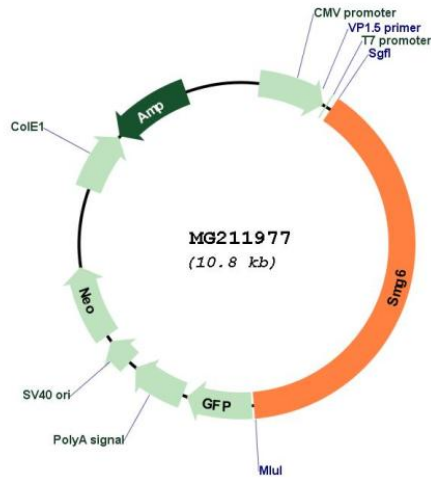
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001002764

ORF Size: 4254 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_001002764.2](#)

RefSeq Size: 5817 bp

RefSeq ORF: 4257 bp

Locus ID: 103677

UniProt ID: [P61406](#)

Cytogenetics: 11 B5

Gene Summary: Component of the telomerase ribonucleoprotein (RNP) complex that is essential for the replication of chromosome termini. May have a general role in telomere regulation. Promotes in vitro the ability of TERT to elongate telomeres. Overexpression induces telomere uncapping, chromosomal end-to-end fusions (telomeric DNA persists at the fusion points) and did not perturb TRF2 telomeric localization. Binds to the single-stranded 5'-(GTGTGG)(4)GTGT-3' telomeric DNA, but not to a telomerase RNA template component (TER). [UniProtKB/Swiss-Prot Function]