

## Product datasheet for **RG211419**

### SMC2 (NM\_001042550) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SMC2 (NM_001042550) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SMC2
Synonyms:	CAP-E; CAPE; SMC-2; SMC2L1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG211419 representing NM_001042550 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**

ATGCATATTAAGTCAATTATTCTAGAGGGATTCAAGTCCTATGCTCAGAGGACCGAAGTCAATGGTTTTG  
ACCCCTCTTCAATGCTATCACTGGCTTAAATGGTAGTGGGAAATCCAACATATTGGACTCCATCTGCTT  
TTTGCTGGGCATCTCCAACCTGTCTCAGGTTGGGCTTCTAATTTACAAGATTTAGTTTACAAAAATGGG  
CAGGCTGGTATTACCAAAGCCTCTGTGCAATCACTTTTGATAATTCTGACAAAAAGCAAAGTCCTTTAG  
GATTTGAGTTTCATGATGAAATCACAGTAACAAGGCAGGTGGTTATTGGTGGTAGAAATAAATATTTAAT  
CAATGGAGTCAATGCCAACACCAGAGTACAGGATCTCTTCTGTTCTGTTGGCCTTAATGTTAAACAAC  
CCTCACTTTCTCATGACAGGGCCGAATTACAAAAGTATTGAATATGAAACCTCCAGAGATTTTATCCA  
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AGATTGAAAGAAACATATGAAGCTCTATTAGCCAGATTTCCCAATCTTCGATTTGCATACAAGGATCCAG  
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CACTAAAAGAAGGTATGTTCAACAATGCAAACGTTCTTTTCAAACCAAGTTTGTGGATGGTGTCTAC  
AGTAGCCAGATTTACTCAATGTCAAATGAAAGATTTCAAAGGAAGCAAAATCCAAGGCCAAAACCAACC  
AAAGGAGCACATGTGAAGTT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG211419 representing NM\_001042550  
 Red=Cloning site Green=Tags(s)

MHIKSIILEGFKSYAQRTEVNGFDPLFNAITGLNGSGKSNILDSICFLLGISNLSQVRASNLQDLVYKNG  
 QAGITKASVSITFDNSDKKQSPGLFEVHDEITVTRQVVIIGGRNKYLINGVNANTRVQDLFCSVGLNVDN  
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 EAVNEAISKSYEQIEVMAAEVAKNKESVNKAQEEVTKQKEVITAQDVTVIKAKYAEVAKHKEQNDSQLKI  
 KELDHNI SKHKREAEDGAAKVSMLKDYDWINAERHLFGQPNSAYDFKTNPKAQRQLKQLQEMKEKLG  
 RNVNMRAMNVLTEAERYNDLMKKKRIVENDKSKILTTIEDLDQKKNQALNIAWQVKNKDFGSIFFSTLLP  
 GANAMLAPPEGQTVLDGLEFKVALGNTWKENLTEL SGGQ RSLVALSLILSMLL FKPAPIYILDEVDAAALD  
 LSHTQNI GQMLRTHFTHSQFIVVSLKEGMFNANVLFKTKFVDGVSTVARFTQCQNGKISKEAKSKAKPP  
 KGAHVEV

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

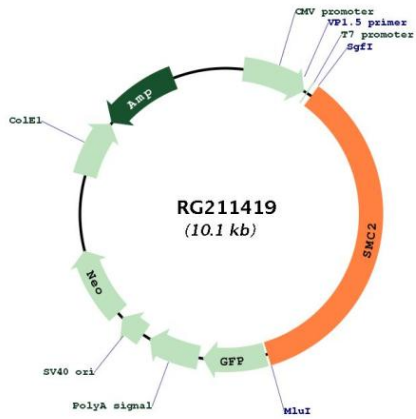


ACCN: NM\_001042550

ORF Size: 3591 bp

<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_001042550.2</a>
<b>RefSeq Size:</b>	6054 bp
<b>RefSeq ORF:</b>	3594 bp
<b>Locus ID:</b>	10592
<b>UniProt ID:</b>	<a href="#">O95347</a>
<b>Cytogenetics:</b>	9q31.1
<b>Protein Families:</b>	Druggable Genome
<b>Gene Summary:</b>	Central component of the condensin complex, a complex required for conversion of interphase chromatin into mitotic-like condense chromosomes. The condensin complex probably introduces positive supercoils into relaxed DNA in the presence of type I topoisomerases and converts nicked DNA into positive knotted forms in the presence of type II topoisomerases.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG211419