

Product datasheet for **SC311426**

SMC2 (NM_001042550) Human Untagged Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | SMC2 (NM_001042550) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | SMC2 |
| Synonyms: | CAP-E; CAPE; SMC-2; SMC2L1 |
| Vector: | <u>pCMV6 series</u> |
| Fully Sequenced ORF: | >NCBI ORF sequence for NM_001042550, the custom clone sequence may differ by one or more nucleotides |

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ATGCATATTAAGTCAATTATTCTAGAGGGATTCAAGTCCTATGCTCAGAGGACCGAAGTC
AATGGTTTTGACCCCTCTTCAATGCTATCACTGGCTTAAATGGTAGTGGGAAATCCAAC
ATATTGGACTCCATCTGCTTTTTGCTGGGCATCTCCAACCTGTCTCAGGTTGGGCTTCT
AATTTACAAGATTTAGTTTACAAAAATGGGCAGGCTGGTATTACCAAAGCCTCTGTGTCA
ATCACTTTTGATAATTCTGACAAAAAGCAAAGTCCTTTAGGATTTGAGGTTTCATGATGAA
ATCACAGTAACAAGGCAGGTGGTTATTGGTGGTAGAAAATAAATATTTAATCAATGGAGTC
AATGCCAACACCAGAGTACAGGATCTTTCTGTTCTGTTGGCCTTAATGTTAAACAAC
CCTCACTTTCTCATCATGCAGGGCCGAATTACAAAAGTATTGAATATGAAACCTCCAGAG
ATTTTATCCATGATAGAAGAAGCAGCTGGAACCGGATGTATGAATACAAAAAATAGCT
GCACAGAAAATATAGAAAAAAGGAGGCTAAGCTGAAAGAAATTAAGACGATACTTGAA
GAAGAGATTACTCCAACCATTAATAAAGAGGAAAGATCGTCCTACTTGGAGTAC
CAAAAAGTAATGAGAGAAATAGAACATTTGAGTCGTTTATATATTGCTTATCAGTTTTTG
CTGGCTGAAGATACCAAAGTACGCTCAGCTGAGGAATTAAGAAATGCAAGATAAAGTT
ATAAAGCTTCAGGAAGAATTGTCTGAGAATGATAAAAAATAAAGCACTTAATCATGAA
ATAGAAGAATTGGAAAAAAGAAAAAGATAAGGAACTGGAGGTACTTTCGATCTTTAGAA
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AATGCTGTTTTCCGCTGGCCTGTCCAGTAATGAAGATGGAGCAGAAGCAACTCTTGCTGGT
CAAATGATGGCCTGTAAAAATGATATAAGTAAAGCTCAGACAGAAGCCAAACAGGCTCAG
ATGAAGTTGAAGCATGCTCAACAGGAATTAAGAATAAACAAGCTGAAGTTAAGAAGATG
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GCCAGATTTCCCAATCTTCGATTTGCATACAAGGATCCAGAGAAGAACTGGAATAGAAAT
TGTGTGAAAGGACTTGTGGCTTCTCTGATTAGTGTGAAAGACACTTCTGCAACCACAGCT
TTAGAATTAGTGGCTGGAGAACGACTCTACAATGTTGTAGTAGACACAGAAGTTACTGGT
AAAAAGCTACTAGAAAGGGGGAAGTGAACGTCGATACACTATAATCCACTCAATAAA

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ATTTGAGCCAGATGTATTGCACCAGAACTCTGAGAGTTGCTCAGAATCTTGTGGCCCT
 GACAACGTTTCATGTGGCTCTTTCCTTGGTTGAATATAAACCGAACTTCAGAAAGCAATG
 GAGTTTGTCTTTGGAACAACATTTGTTTGTGACAAATATGGATAATGCCAAAAAGTGGCC
 TTTGATAAGAGGATAATGACTAGAACTGTAAGTCTCGGAGGTGATGTGTTGATCCTCAT
 GGGACATTGAGTGGAGGTGCTCGATCCCAGGCAGTTCATTTTAAACCAAGTTTCAAGAA
 CTCAAAGATGTTCCAGGATGAACTGAGAATCAAAGAGAATGAGCTGCGGGCTCTAGAAGAG
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 GCCAAAACAAAGGCAGATGCATCTAGCAAGAAGATGAAAGAAAAACAACAGGAAGTTGAA
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 GTGGCTAAAAATAAGGAGTCAGTAAATAAGCTCAAGAAGAGGTGACCAAGCAAAAAGAG
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 AAACGGGAGGCTGAAGATGGTGGCTGCAAAAGGTATCCAAAATGTTGAAAGATTATGACTGG
 ATTAATGCAGAGAGACACCTCTTTGGCCAAACCAATAGTGCCATGATTTCAAACTAAC
 AACCTAAAGAAGCTGGTCAGAGACTTCAGAAGTTGCAAGAAATGAAGGAGAACTAGGA
 AGAAATGTCAATATGAGAGCTATGAATGTATTGACAGAAGCTGAAGAGCGATACAATGAC
 TTGATGAAGAAGAAGAGAATTGTAGAAAATGACAAATCCAAAATCTTACAACATAGAA
 GACCTTGACCAGAAGAAAAACCAAGCCCTAAATATTGCATGGCAAAAGGTGAACAAGGAC
 TTTGGGTCTATTTTTCTACTCTTTTGCCTGGTGCTAATGCTATGCTTGCACCACAGAG
 GGTCAAAGTGTGTTGGATGGTCTGGAGTTCAAGGTTGCCTTGGGAAATACCTGAAAAGAA
 AACCTAACTGAAGTGTGGTGGTCAAGAGTCTTTAGTGGCCTTGTCAATAACTGTCC
 ATGCTTCTCTTCAAACCTGCTCCAATTTATATCCTTGTGAGGTAGATGCAGCCTTGGAT
 CTTTCTCATACCCAAAACATTGGACAGATGCTGCGTACTCATTTACACATTCTCAGTTC
 ATTGTGGTGTCACTAAAAGAAGGTATGTTCAACAATGCAAACGTTCTTTTCAAACCAAG
 TTTGTGGATGGTGTCTACAGTAGCCAGATTTACTCAATGTCAAATGGAAAGATTTCA
 AAGGAAGCAAAATCCAAGCAAAACCAACCAAGGAGCACATGTGGAAGTTTAA

Restriction Sites:

Please inquire

ACCN:

NM_001042550

OTI Disclaimer:

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 custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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| OTI Annotation: | This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA. |
| 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: | <ol style="list-style-type: none"> 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: | <u>NM_001042550.1</u> , <u>NP_001036015.1</u> |
| RefSeq Size: | 6054 bp |
| RefSeq ORF: | 3594 bp |
| Locus ID: | 10592 |
| UniProt ID: | <u>O95347</u> |
| Cytogenetics: | 9q31.1 |
| Protein Families: | Druggable Genome |
| Gene Summary: | <p>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]</p> <p>Transcript Variant: This variant (1) represents the longest transcript. All variants encode the same protein.</p> |