

Product datasheet for **MC223961**

Smc3 (NM_007790) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smc3 (NM_007790) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Smc3
Synonyms:	Bamacan; Cspg6; HCAP; Mmip1; SMC-3; SmcD
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC223961 representing NM_007790 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGTACATCAAGCAGGTGATCATCCAGGGCTCCGAAGTTACCGAGACCAACAATTGTAGATCCCTTCA
GCTCCAAACATAATGTCATCGTGGGCAGAAATGGCTCTGGAAAAAGCAACTTCTTTTATGCAATCCAGTT
TGTTCTCAGTGATGAATTCAGCCATCTTCGTCCAGAGCAGCGATTGGCTTTGTTGCATGAGGGTACAGGT
CCTCGTGTATTCTGCTTTTGTGGAAATCATTTTTGACAATTCGGACAACCGGTTACCAATTGATAAAG
AGGAAGTTTCACTTCGAAGAGTTATTGGTGCCAAAAAGGATCAGTATTCCTAGATAAGAAGATGGTCAC
GAAAAATGATGTGATGAATCTCCTTGAAAGTGCTGGGTTTTCCAGAAGTAATCCTTATTACATTGTAA
CAAGGAAAGATCAACCAATGGCAACGGCACCAGATTCTCAGAGATTAAGCTGTTGAGAGAAGTAGCTG
GTACTAGAGTGTATGATGAACGGAAAGAAGAAAGCATCTCCCTGATGAAAGAAACAGAGGGCAAACGGGA
AAAGATCAATGAGTTGTTGAAGTACATTGAAGAGCGCCTGCACACTCTAGAGGAGGAGAAGGAGGAGCTG
GCCCAGTATCAGAAGTGGGATAAGATGAGGCGCGCCCTGGAGTACACCATCTACAACCAGGAGCTCAACG
AGACGCGCGCTAAGCTCGACGAGCTTCTGCTAAGCGAGAAACGAGTGGAGAGAAATCCAGACAATAAG
GGATGCCAGCAGGATGCAAGAGACAAAAATGGAGGATATTGAGCGCCAGGTTAGAGAAGTAAAAACAAAA
ATTTACGCCATGAAAGAAGAAAAAGAACAGCTTAGTGCTGAAAGACAAGAGCAGATTAAGCAAAGGACCA
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AAAAGAGAGGCAGAAGCTGCTTGAAAAATAGAAGAAAAGCAGAAAGAACTGGCAGAAACAGAACCTAAA
TTCAACAGCGTAAAAGAAAAAGAGCGAGGAATTGCGAGGTTGGCTCAAGCTACACAGGAAAGAACTG
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TCAAAGCTCGAGTTGAAGAACTGGACAGAAAAATATTATGAAGTAAAAAATAAGAAAGATGAACTACAAAG
TGAAGAAATTAAGTGTGGAGAGAGGAGAAATGCAGAACAAACAGCACTTCTGCTGCTAAAAGAGAAGACCTT
GAGAAGAAGCAGCAACTTCTTAGAGCGGCAACAGGAAAGGCCATTTAAATGGAATAGATAGCATTAAACA



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AAGTGCTAGAACATTTTCGGCGAAAAGGTATAAACCCAGCATGTTCAAAATGGCTACCATGGCATCGTAAT
 GAATAACTTTGAGTGTGAACCAGCTTTCTATACTTGTGTGGAAGTCACTGCTGGTAACAGGTTATTTTAT
 CACATTGTTGATTCAGATGAAGTCAGCAGCAAAAATTTTAAATGGAGTTCAATAAAATGAATCTTCCTGGAG
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 GTTACAGAAAGACGTTAGGAAGGCAGAGGAGGAGCTGGGTGAGCTGGAGGCTAAGCTCAATGAAAACCTA
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 AAGAAATAAACTAGAAGGCATTATTACTCGAGTAGAGACTTACCTGAATGAGAATCTGAGGAAACGCTTG
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 CAGAACTTGAAGCTATTATAAAAAGAGTAAAAGATACTATGGCAAGATCAGAAGATTTGGACAATCCAT
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 CCAGACACTGAGCCTGAAGCAGTTGTTTCGAAAAGCTGGAGCAATGCAACACAGAGTTAAAGAAGTACAGC
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 AAGAGGAATTGGATAGAGGCTACAAATCAATCATGGAATTGATGAATGTACTTGAACCTAGAAAAATGA
 AGCTATTCAGTTAACTTTCAAACAGGTATCTAAGAACTTCAGTGAAGTTTTCCAGAAGTTGGTACCTGGT
 GGCAAAGCGACTTTGGTATGAAGAAAGGAGATGTGGAGGGCAGCCAGTCTCAGGACGAAGGAGAAGGGA
 GTGGCGAGAGTGAGCGGGCTCTGGGTCACAGAGCAGTGTCCATCAGTTGACCAGTTCACAGGAGTTGG
 GATCAGGGTGTCAATTTACAGGGAAGCAAGGGGAGATGAGAGAAATGCAGCAGCTCTCAGGAGGACAGAAA
 TCTCTGGTAGCCCTTGCTCTCATCTTTGCCATTGAGAAATGCGACCCTGCTCCTTTTTACCTGTTTGATG
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 TGCCCAAGTTTATTACCACTACTTCAGGCCTGAACTGCTTGAGTCAGCTGACAAATTCATGGTGTAAAG
 TTCAGAAATAAGGTTAGTCACATTGATGTGATCACAGCAGAGATGGCCAAAGATTTGTAGAAGACGATA
 CCACGCATGGTTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
 ACCN: NM_007790
 Insert Size: 3654 bp

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](#)

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_007790.3](#), [NP_031816.2](#)

RefSeq Size: 4851 bp

RefSeq ORF: 3654 bp

Locus ID: 13006

UniProt ID: [Q9CW03](#)

Cytogenetics: 19 D2

Gene Summary: Central component of cohesin, a complex required for chromosome cohesion during the cell cycle. The cohesin complex may form a large proteinaceous ring within which sister chromatids can be trapped. At anaphase, the complex is cleaved and dissociates from chromatin, allowing sister chromatids to segregate. Cohesion is coupled to DNA replication and is involved in DNA repair. The cohesin complex plays also an important role in spindle pole assembly during mitosis and in chromosomes movement.[UniProtKB/Swiss-Prot Function]