

Product datasheet for **MR209999**

Smc3 (BC057345) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Smc3 (BC057345) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smc3
Synonyms:	HCAP, SmcD, Bamacan
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>MR209999 representing BC057345
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAATAACTTTGAGTGTGAACCAGCTTCTATACTTGTGTGGAAGTCACTGCTGGTAACAGGTTATTTT
ATCACATTGTTGATTAGATGAAGTCAGCACGAAAATTTAATGGAGTTCAATAAAATGAATCTTCTCGG
AGAGGTGACTTTCCTGCCTTTAACAAGTTAGATGTGAGAGATACTGCCTATCCTGAAACTAACGATGCT
ATTCCTATGATCAGTAAGCTGAGGTACAATCCCAGATTTGACAAAAGCTTTCAAACATGTATTTGGAAAGA
CACTCATCTGTCGGAGCATGGAAGTTTCAACTCAGCTGGCCCGGCCCTTCACTATGGACTGTATTACTTT
GGAAGGTGATCAAGTCAGCCATCGAGGTGCTCTGACTGGAGGTTATTACGACACAAGAAAGTCTCGACTT
GAGTTACAGAAAGACGTTAGGAAGGCAGAGGAGGAGCTGGGTGAGCTGGAGGCTAAGCTCAATGAAAACC
TACGCAGGAACATTGAAAGGATTAATAATGAAATTGACCAGTTGATGAACCAAATGCAGCAGATAGAGAC
CCAACAAAGAAAATTTAAAGCATCCAGAGATAGCATATTATCAGAGATGAAGATGCTAAAAGAGAAGAGA
CAGCAATCAGAAAAGACCTTCATGCCAAAGCAAGTAGCTTACAAGCTTGGAGGCAAGTCTGCATGCTA
TGGAGTCCACCAGAGAGTCACTGAAAGCGGAGCTAGGAACGGATTTGCTTCTCAACTCAGTCTGGAAGA
TCAGAAAAGAGTCGACGCTCTGAATGATGAAATCCGTCAGCTGCAGCAGGAAAACAGACAGCTGCTAAAT
GAAAGAATTAACATAGAAGGCATTATTACTCGAGTAGAGACTTACCTGAATGAGAATCTGAGGAAACGCT
TGGACCAAGTAGAACAGGAACCTAATGAACTGAGAGAGACAGAAGGTGGTACTGTTCTTACTGCCACAAC
ATCAGAACTTGAAGCTATTAATAAAAGAGTAAAAGATACTATGGCAAGATCAGAAGATTTGGACAATTCC
ATTGACAAAACAGAAGCTGGAATTAAGAGCTCCAGAAAAGTATGGAGCGCTGGAAAAATATGGAGAAAG
AACACATGGATGCCATAAATCATGATACTAAAGAGCTGGAGAAGATGACCAACCGGCAAGGCATGCTGTT
GAAGAAGAAGGAGGAGTGTATGAAGAAGATCCGGGAGCTGGGGTCCCTCCCCAGGAAGCGTTTGAGAAG
TACCAGACACTGAGCCTGAAGCAGTTGTTTCGAAAAGCTGGAGCAATGCAACACAGAGTTAAAGAAGTACA
GCCACGTGAACAAAAGGCTCTAGATCAGTTTGTGAATTTCTCTGAGCAGAAGGAAAAGCTGATAAAGCG
GCAAGAGGAATTGGATAGAGGCTACAAATCAATCATGGAATTGATGAATGTACTTGAAGTATAGAAAATAT
GAAGCTATTCAGTTAACTTTCAAACAGGTATCTAAGAAGTTCAGTGAAGTTTCCAGAAGTTGGTACCTG
GTGGCAAAGCGACTTTGGTGTGAAGAAAGGAGATGTGGAGGGCAGCCAGTCTCAGGACGAAGGAGAAGG
GAGTGGCGAGAGTGAGCGGGCTCTGGGTACAGAGCAGTGTCCATCAGTTGACCAGTTCACAGGAGTT
GGGATCAGGGTGTCAATTTACAGGAAGCAAGGGGAGATGAGAGAAATGCAGCAGCTCTCAGGAGGACAGA
AATCTCTGGTAGCCCTTGTCTCATCTTTGCCATTCAGAAATGCGACCCTGCTCCTTTTTACCTGTTTGA
TGAGATCGACCAAGCTTTGGATGCTCAGCACAGAAAAGCCGTGTCAGATATGATTATGGAGCTAGCCGTG
CATGCCAGTTTATTACCACTACTTTCAGGCCTGAACTGCTTGAGTCAGCTGACAAATCTATGGTGTAA
AGTTTCAGAAATAAGGTTAGTCACATTGATGTGATCACAGCAGAGATGGCCAAAGATTTTGTAGAAGACGA
TACCACGCATGGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR209999 representing BC057345
 Red=Cloning site Green=Tags(s)

MNNFECEPAFYTCVEVTAGNRLFYHIVDSDEVSTKILMEFNKMNLPGEVTFPLPNKLDVRDTAYPETNDA
 IPMISKLRYNPRFDKAFKHVFGKTLICRSMEVSTQLARAF T MDCITLEGDQVSHRGAL TGGYYDTRKSRL
 ELQKDVRAEEELGELEAKLNENLRNRIERINNEIDQLMNQMQQIETQQRKFKASRDSILSEMMLKEKR
 QQSEKTFMPKQRSLSLEASLHAMESTRESLKAELGTDLLSQLSLEDQKRV DALNDEIRQLQQENRQLLN
 ERIKLEGIITRVETYL NENLRKRLDQVEQELNELRETEGGTVLTATTSELEAINKRVKDTMARS EDL DNS
 IDKTEAGIKELQKSMERWKNMEKEHMDAINHDTKELEKMTNRQGM L LKKKEECMKKIRELGS LPQEAF EK
 YQTL SLKQLFRKLEQCNT ELKKYSHVNKKALDQFVNFSEQKEKLIK RQEELDRGYK SIMELMNVLELRKY
 EAIQLTFKQVSKNFSEVFQKLVPGGKATLVMMKGDVEGSQSQDEGEGSGESERGSQS SSVSDQFTGV
 GIRVSFTGKQGMREMQQLSGGQKSLVALALIFAIQKCDPAPFYLFDEIDQALDAQHRKAVSDMIMELAV
 HAQFITTTFRPELLESADKFGYGVKFRNKVSHIDVITAEMAKDFVEDDTTHG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: BC057345

ORF Size: 2043 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](#)

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: [BC057345.1](#)

RefSeq Size: 2711 bp

RefSeq ORF: 2045 bp

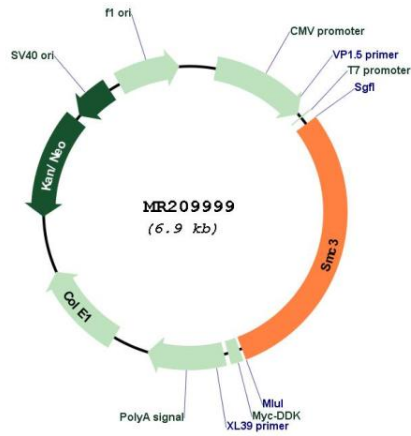
Locus ID: 13006

Cytogenetics: 19 D2

MW: 99.3 kDa

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]

Product images:



Circular map for MR209999