

## Product datasheet for MR211814

### Smc3 (NM\_007790) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Smc3 (NM_007790) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Smc3
Synonyms:	Bamacan; Cspg6; HCAP; Mmip1; SMC-3; SmcD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211814 representing NM_007790 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTACATCAAGCAGGTGATCATCCAGGGCTTCCGAAGTTACCGAGACCAACAATTGTAGATCCCTTCA  
GCTCCAAACATAATGTCATCGTGGGCAGAAATGGCTCTGGAAAAAGCAACTTCTTTTATGCAATCCAGTT  
TGTTCTCAGTGATGAATCAGCCATCTTCGTCCAGAGCAGCGATTGGCTTTGTTGCATGAGGGTACAGGT  
CCTCGTGTATTCTGCTTTTGTGAAATCATTTTGGACAATTCGGACAACCGGTTACCAATTGATAAAG  
AGGAAGTTTCACTTCGAAGAGTTATTGGTGCCAAAAGGATCAGTATTTCTAGATAAGAAGATGGTCCAC  
GAAAAATGATGTGATGAATCTCCTTGAAAGTGCTGGGTTTTCCAGAAGTAATCCTTATTACATTGTTAAA  
CAAGGAAAGATCAACCAATGGCAACGGCACCAGATTCTCAGAGATTAAGCTGTTGAGAGAAGTAGCTG  
GTACTAGAGTGTATGATGAACGGAAAGAAGAAAGCATCTCCCTGATGAAAGAAACAGAGGGCAAACGGGA  
AAAGATCAATGAGTTGTTGAAGTACATTGAAGAGCGCCTGCACACTCTAGAGGAGGAGAAGGAGGAGCTG  
GCCAGTATCAGAAGTGGGATAAGATGAGGCGGCCCTGGAGTACACCATCTACAACCAGGAGCTCAACG  
AGACGCGCGCTAAGCTCGACGAGCTTCTGCTAAGCGAGAAACGAGTGGAGAGAAATCCAGACAATAAG  
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TTCAACAGCGTAAAAGAAAAAGAGCGAGGAATTGCGAGGTTGGCTCAAGCTACACAGGAAAGAACTG  
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GAGAAGAAGCAGCAACTTCTTAGAGCGGCAACAGGAAAGGCCATTTTAAATGGAATAGATAGCATTAAACA  
AAGTGCTAGAACATTTTCGGCGAAAAGGTATAAACCCAGCATGTTCAAATGGCTACCATGGCATCGTAAT  
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CGCAGGAACATTGAAAGGATTAATAATGAAATTGACCAGTTGATGAACCAAATGCAGCAGATAGAGACCC  
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GATCAGGGTGTCAATTTACAGGGAAGCAAGGGGAGATGAGAGAAATGCAGCAGCTCTCAGGAGGACAGAAA  
TCTCTGGTAGCCCTTGTCTCATCTTTGCCATTCAGAAATGCGACCCTGCTCCTTTTTACCTGTTTGATG  
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TTCAGAAATAAGGTTAGTCACATTGATGTGATCACAGCAGAGATGGCCAAAGATTTGTAGAAGACGATA  
CCACGCATGGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR211814 representing NM\_007790  
 Red=Cloning site Green=Tags(s)

MYIKQVIIQGFRSYRDQTI VDPFSSKHNVIVGRNGSGKSNFFYAIQFVLSDEFSHLRPEQRLALLHEGTG  
 PRVISAFVEIIFDNSDNRLPIDKEEVSLRRVIGAKKDQYFLDKKMVTKNDVMNLLSAGFSRSNPYYIVK  
 QGKINQMATAPDSQRLKLLREVAGTRVYDERKEESI SLMKETEGKREKINELLKYIEERLHTEEEKEEL  
 AQYQKWDKMRRALEYTIYNQELNETRAKLDL SAKRETSGEKSRQLRDAQDARDKMEDIERQVRELKTK  
 ISAMKEEKEQLSAERQEIQRTKLELKAKDLQDEL AGNSEQRKRLKERQKLEKIEEKQKELAEETPK  
 FNSVKEKEERGIARLAQATQERTDLYAKQGRGSQFTSKEERDKWIKKELKSLDQAINDKKRQIAAIIHKDL  
 EDTEANKEKNLEQYNKLDQDLNEVKARVEELDRKYVEVKNKKDELQSERNYLWREENAEQQAALAAKREDL  
 EKKQQLLRAATGKAILNGIDSINKVLEHFRRKGINQHVQNGYHGI VMNFECEPAFYTCVEVTAGNRLFY  
 HIVDSDEVSTKILMEFNKMNLPGEVTFLLPLNKLDVRDTA YPETNDAIPMISKLRYNPRFDKAFKHVFGKT  
 LICRSMEVSTQLARAFTMDCITLEGDQVSHRGAL TGGYYDTRKSRL ELQKDVRAEEELGELEAKLNENL  
 RRNIERINNEIDQLMNMQQIETQQRKFKASRDSIL SEMKMLKEKRQQSEKTFMPKQRSLSLEASLHAM  
 ESTRESLKAELGTDLLSQLSLEDQKRV DALNDEIRQLQ QENRQLLNERIKLEGIITRVETYL NENLRKRL  
 DQVEQELNELRETEGGTVLTATTSELEAINKRVKDT MARSEDL DNSIDKTEAGIKELQKSMERWKNMEKE  
 HMDAINHDTKELEKMTNRQGM LKKKEECMKKIREL GSLPQEA FEKYQTL SLKQLFRKLEQCNT ELKKYS  
 HYNKKALDQFVNFSEQKEKLIK RQEELDRGYK SIMELMNVLELRKYEA IQLTFKQVSKNFSEVFQKLVPG  
 GKATLVMMKGDVEGSQSQDEGEGSGESERGSQS SVSPVDQFTGVGIRVSFTGKQGMREMQLSGGQK  
 SLVALALIFAIQKCDPAPFYL FDEIDQALDAQHRKAVSDMIMELAVHAQF ITTTFRPELLESADKFYGVK  
 FRNKVSHIDVITAEMAKDFVEDDTHG

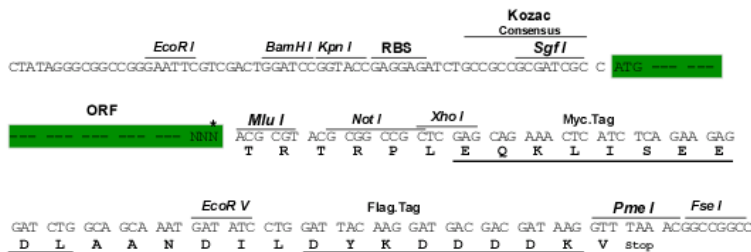
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



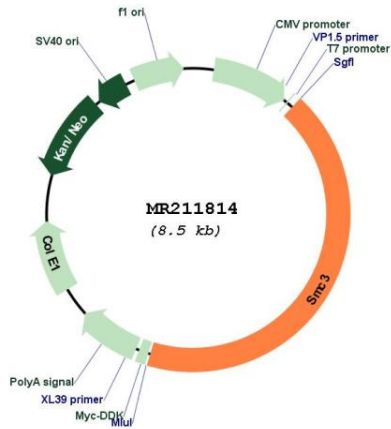
\* The last codon before the Stop codon of the ORF

ACCN: NM\_007790

ORF Size: 3651 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>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<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>	<p><a href="#">NM_007790.3</a>, <a href="#">NP_031816.2</a></p>
<b>RefSeq Size:</b>	<p>4851 bp</p>
<b>RefSeq ORF:</b>	<p>3654 bp</p>
<b>Locus ID:</b>	<p>13006</p>
<b>UniProt ID:</b>	<p><a href="#">Q9CW03</a></p>
<b>Cytogenetics:</b>	<p>19 D2</p>
<b>MW:</b>	<p>142 kDa</p>
<b>Gene Summary:</b>	<p>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]</p>

Product images:



Circular map for MR211814