

Product datasheet for **RC208031**

SMC6L1 (SMC6) (NM_024624) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMC6L1 (SMC6) (NM_024624) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SMC6L1
Synonyms:	hSMC6; SMC-6; SMC6L1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC208031 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

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ATAGATGATGCTTATAGACAAGGACATTTTACCTAAACCTGTAGGCCCTTTAGGAGCTTGCATTTCATCTTCGGGACCCAGAACTTGCTTTGGCTATTGAATCTTGCTTAAAGGGCTTCTGCAGGCCTATTGTTGCCATAATCATGCTGATGAAAGGGTCTTCAGGCACCTCATGAAAGGTTTTATTTACCAGGGACCTCACGGCCA
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Protein Sequence:

>RC208031 protein sequence
Red=Cloning site Green=Tags(s)

MAKRKEENFSSPKNAKPRQEELEDFKDGDDECKGTTLTAAEVGIIESIHLKNFMCHSMLGPFFKFSN
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FPTVLTALIDNAVANSIDMRGIETVLLIKNNSVARAVMQSQKPPKNCREAFTADGDQVFA
GRYYSSENTRPKFLSRDVSDEISDLENEVENKTAQILNLQOHL
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KEHLDTLNKKKRELDMKEKELEEKMSQARQICPERIEVEKQASILDK
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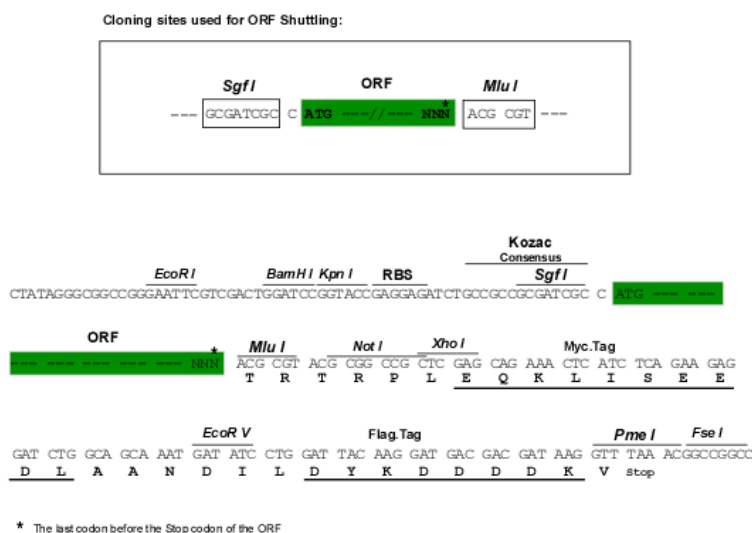
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6204_d02.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_024624

ORF Size: 3273 bp

OTI Disclaimer: 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_024624.5](#)

RefSeq Size: 5188 bp

RefSeq ORF: 3276 bp

Locus ID: 79677
UniProt ID: [Q96SB8](#)

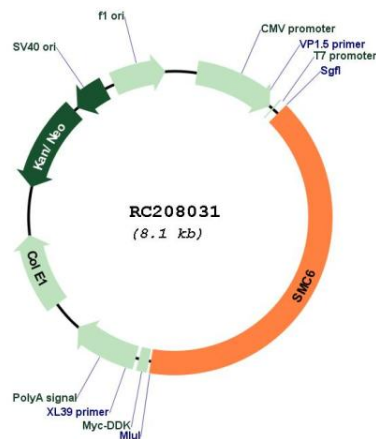
Cytogenetics: 2p24.2

Domains: SMC_C

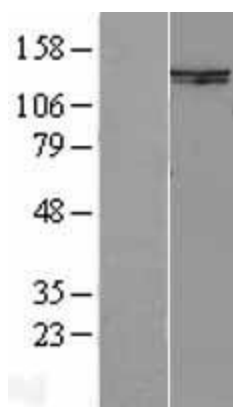
MW: 126.3 kDa

Gene Summary: Core component of the SMC5-SMC6 complex, a complex involved in DNA double-strand breaks by homologous recombination. The complex may promote sister chromatid homologous recombination by recruiting the SMC1-SMC3 cohesin complex to double-strand breaks. The complex is required for telomere maintenance via recombination in ALT (alternative lengthening of telomeres) cell lines and mediates sumoylation of shelterin complex (telosome) components which is proposed to lead to shelterin complex disassembly in ALT-associated PML bodies (APBs). Required for recruitment of telomeres to PML nuclear bodies. SMC5-SMC6 complex may prevent transcription of episomal DNA, such as circular viral DNA genome (PubMed:26983541).[UniProtKB/Swiss-Prot Function]

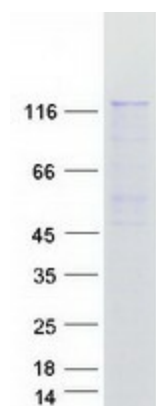
Product images:



Circular map for RC208031



Western blot validation of overexpression lysate (Cat# [LY428009]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227064] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SMC6 protein (Cat# [TP308031]). The protein was produced from HEK293T cells transfected with SMC6 cDNA clone (Cat# RC208031) using MegaTran 2.0 (Cat# [TT210002]).