

Product datasheet for **RG221101**

SMC1L2 (SMC1B) (NM_148674) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SMC1L2 (SMC1B) (NM_148674) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SMC1B
Synonyms:	SMC1BETA; SMC1L2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG221101 representing NM_148674 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCCACCTGGAGCTGCTGCTTGTTGGAAAATTTCAAGTCGTGGCGGGCCGCCAGGTCATTGGCCCT
TCCGGAGGTTACCTGCATCATCGGCCCAACGGCTCTGGAAAATCTAATGTAATGGATGCACCTAGTTT
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CATTGCAGAGTTGAAAAGATAGGCATAATAGTCAAAGCACAAAATTGTTTGGTTTTTCAGGAACTGTA
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ACCCATGAGGGAAAACGTCAGCAAAAGAGAGCAGAGGTTCTGGAACACCTTAAAAGACTGTACCCAGATT
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TAGATCTTCTCAGTATCCAGACACTGAAGGCCAAGAAAGCAGCAAGAGACACGGAGAGTCCCGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG221101 representing NM_148674
 Red=Cloning site Green=Tags(s)

MAHLELLLVENFKSWRGRQVIGPFRFTCIIGPNGSGKSNVMDALSFVMGEKIANLRVKNIQELIHGAHI
 GKPISSASVKIIVVEESGEEKTFARIIRGGCSEFRFNDNLVSRVYIAELEKIGIIVKAQNCLVFQGTV
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 CRQEFQVKKRRYDLFTQCFEHVSIIDQIYKLCRNNSAQAFSPENPEEPYLEGISYNCVAPGKRFMP
 MDNLSSGGEKVAALALLFAVHSFRPAPFFVLDEVDAALDNTNIGKVSSYIKEQTQDQFMIVISLKEEYF
 SRADALIGIYPEYDDCMFSRVLTLDL SQYPTDEGEQSSKRHGSR

TRTRPLE - GFP Tag - V

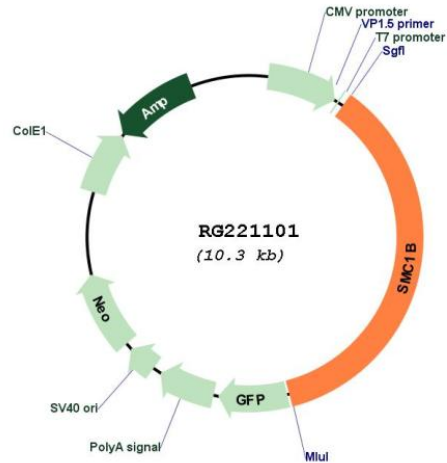
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_148674

ORF Size: 3705 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.

RefSeq: [NM_148674.3](#), [NP_683515.3](#)

RefSeq Size: 4266 bp

RefSeq ORF: 3708 bp

Locus ID: 27127

UniProt ID: [Q8NDV3](#)

Cytogenetics: 22q13.31

Domains: SMC_N, SMC_C

Protein Pathways: Cell cycle, Oocyte meiosis

Gene Summary: SMC1L2 belongs to a family of proteins required for chromatid cohesion and DNA recombination during meiosis and mitosis (3:Revenkova et al., 2001 [PubMed 11564881]). [supplied by OMIM, Mar 2008]