

Product datasheet for **RG234801**

SUN2 (NM_001199579) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SUN2 (NM_001199579) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SUN2
Synonyms:	UNC84B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG234801 representing NM_001199579
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCCCGAAGAAGCCAGCGCCTCACGCGTACTCCAGGGTGACGATGACGGCAGCAGCAGCAGCGGAG
 GGAGCTCGGTGGCTGGGAGTCAGAGCACCTGTTTAAAGACAGTCCTCTCAGGACCTTGAAGAGGAAATC
 CAGCAACATGAAGCGCCTGTCCCAGCGCCACAGCTGGGCCCTCTGATGCACACACCTCCTACTAC
 AGTGAGTCGCTGGTCCACGAGTCTGGTCCCACCCAGGAGCTCCCTGGAGGAACTGCATGGTGACGCCA
 ACTGGGGTGAGGACCTGCGGGTGCAGGAGGAGAGGCACGGGTGGCTCAGAGAGCAGCAGGGCCAGCGG
 GCTTGTGGGGCGCAAGGCCACCGAGGACTTCTGGGCTTCTCCTCGGGTACTCCTCTGAGGACGACTAC
 GTGAAGACAGTGAAGGAAGAGGCTCGAAAGTGACAGAGACTGAGCCAGTGTCTCGTTCGCCGAGGCT
 ACTCGGATGTGGACCAGCAGAGTCCAGCTCGCGGCTCCGAAGCGCCGTCTCACGGGCGGGCTCCTTACT
 CTGGATGGTGGCCACTTCGCCAGGCCGGCTCTTACAGACTTCTCTACTGGTGGGCTGGCACCACCTGGTAC
 CGCTGACCACAGCTGCCTCCCTCCTTGACGTCTTCGTTTTAACAGGCGCTTCTCGTCCCTGAAGACGT
 TCCTCTGGTTCCTGCTGCCGCTGCTCTTGCTGACGTGCCTGACGTATGGTGTGGTATTCTACCCCTA
 TGGGCTGCAGACATTCACCCCTGCTTGGTTTCTGGTGGGCAGCGAAGGACAGCAGGAGGCCGGATGAG
 GGCTGGGAAGCCAGAGACTCATCGCCACATTCACAGGCTGAGCAGCGTGTATGTCCCGGTACACTCTC
 TGGAGCGCGCTCTGAAGCTCTTGCTGTGAATTTTCTCCAAGTGGCAGAAGGAGGCCATGCGGCTGGA
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 GCGCTGCTGGAGGGGCTAGTGAGCCGCGTGAAGCTGCCCTGAAGGAGGATTTCCGACGGGAAACTGTG
 CTCGCATCCAGGAAGAAGTGTCTGCCCTGAGAGCAGAGCATCAGCAAGACTCAGAAGACCTTCAAGAA
 GATCGTCCGGGCTCCCAGGAGTCCGAGGCTCGCATCCAGCAGCTGAAGTCAGAGTGGCAAAGCATGACC
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 CCAGGCCGTGCGGGACGACGTGGAATCTCAGTTCGCCGCTGGATCAGTCAGTTCCTTGGCCGAGGTGGA
 GGGGGCCGCTGGGGCTCCTTACAGAGAGGAGATGCAAGCTCAGCTGCGAGAGCTGGAGAGCAAGATCC
 TCACCCATGTGGCAGAGATGCAGGGCAAGTCGGCCAGGGAAGCCGCGGCTCCCTGAGCCTGACGCTGCA
 GAAAGAAGGTGTGATTGGAGTGACAGAGGAGCAGGTGCACCACATCGTGAAGCAGGCCCTGCAGCGCTAC
 AGTGAGGACCGCATCGGGCTGGCAGACTACGCCCTGGAGTCAGGAGGGGCCAGCGTCATCAGCACCCGAT
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 GTCACCCCGAGTCATCCTCCAGCCAGATGTGCACCCAGGCAACTGCTGGGCCCTCCAGGGGCCACAAGGC
 TTCGCCGTGGTCCGCTCTCTGCCCGCATCCGCCCCACAGCCGTTACCTTAGAGCATGTGCCAAGGCCCT
 TGTACCCAACAGCACTATCTCCAGTGCSCCAAGGACTTCGCCATCTTTGGTTTGACGAAGACCTGCA
 GCAGGAGGGGACACTCCTTGCAAGTTCACCTACGATCAGGACGGCGAGCCTATTCAGACGTTTCACTTT
 CAGGCCCTACGATGGCCACGTACCAGGTGGTGGAGCTGCGGATCCTGACTAACTGGGGCCACCCCGAGT
 ACACCTGCATCTACCGCTTCAGAGTGCATGGGGAGCCCGCCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG234801 representing NM_001199579
 Red=Cloning site Green=Tags(s)

MSRRSQRLTRYSGDDDDGSSSSGGSSVAGSQSTLFKDSPLRRTLKRKSSNMKRLSPAPQLGPSSDAHTSY
 SESLVHESWFPFRSSLEELHGDANWGEDLRVRRRRGTGGSESSRASGLVGRKATEDFLGSSSGYSSDDY
 VEDSEGRGSKVTETEPVSSFPAGYSDVDQSSSSRLRSVSRAGSLLWMVATSPGRLFRLLYWWAGTTWY
 RLTTAASLLDVFLTRRFSSLKTFLLWLLPLLLLTLCLTYGAWFYYPYGLQTFHPALVSWWAAKDSRRPDE
 GWEARDSSPHFQAEQRVMSRVHSLERRLEALAEFSSNWQKEAMRLERLELRQGAPGQGGGGLSHEDTL
 ALLEGLVSRREAALKEDFRRETAARIQEEL SALRAEHQQDSEDLFKKIIVRASQSEARIQQLKSEWQSMT
 QESFQESSVKELRRELDQLAGLQQELAALALKQSSVAEEVGLLPQQIQAVRDDVESQFPAWISQFLARGG
 GGRVGLLQREEMQAQLRELESKILTHVAEMQGKSAREAAASLSLTLQKEGVIQVTEEQVHHIVKQALQRY
 SEDRIGLADYALESGGASVISTRCSYETKTKALLSLFGIPLWYHSQSPRVILQPDVHPGNCWAFQGPQG
 FAVVRLSARIRPTAVTLEHVPKALSPNSTISSAPKDFAIFFGDEDLQEQETLLGKFTYDQDGEPIQTFHF
 QAPTMATYQVVELRILTNWGHPEYTCIYRFRVHGEPAH

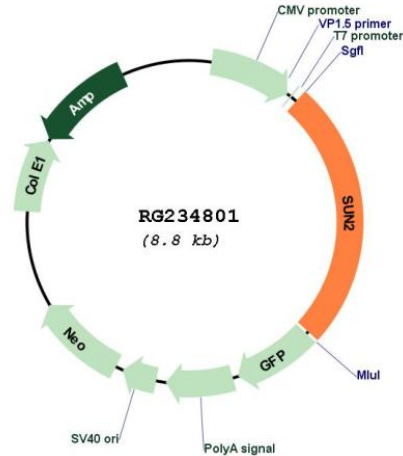
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN: NM_001199579

ORF Size: 2214 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_001199579.2](#)

RefSeq Size: 4070 bp

RefSeq ORF: 2217 bp

Locus ID: 25777

UniProt ID: [Q9UH99](#)

Cytogenetics: 22q13.1

Protein Families: Transmembrane

Gene Summary: SUN1 (MIM 607723) and SUN2 are inner nuclear membrane (INM) proteins that play a major role in nuclear-cytoplasmic connection by formation of a 'bridge' across the nuclear envelope, known as the LINC complex, via interaction with the conserved luminal KASH domain of nesprins (e.g., SYNE1; MIM 608441) located in the outer nuclear membrane (ONM). The LINC complex provides a direct connection between the nuclear lamina and the cytoskeleton, which contributes to nuclear positioning and cellular rigidity (summary by Haque et al., 2010 [PubMed 19933576]).[supplied by OMIM, Nov 2010]