

## Product datasheet for **RG234768**

### **SUN2 (NM\_001199580) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SUN2 (NM_001199580) 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)



[View online »](#)

ORF Nucleotide  
Sequence:

>RG234768 representing NM\_001199580  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTCCCGAAGAAGCCAGCGCCTCACGCGCTACTCCAGGGTGACGATGACGGCAGCAGCAGCAGCGGAG  
GGAGCTCGGTGGCTGGGAGTCAGAGCACCTGTTTAAAGACAGTCCTCTCAGGACCTTGAAGAGGAAATC  
CAGCAACATGAAGCGCCTGTCCCCAGCGCCACAGCTGGGCCCTCTGATGCACACACCTCCTACTAC  
AGTGAGTCGCTGGTCCACGAGTCTGGTCCACCCAGGAGCTCCCTGGAGGAACTGCATGGTGACGCCA  
ACTGGGGTGAGGACCTGCGGGTGCAGGAGGAGAGGCACGGGTGGCTCAGAGAGCAGCAGGGCCAGCGG  
GCTTGTGGGGCGCAAGGCCACCGAGGACTTCTGGGCTTCTCTCGGGCTACTCCTCTGAGGACGACTAC  
GTGGGCTACTCGGATGTGACCAGCAGAGTTCAGCTCGCGGCTCCGAAGCGCCGCTCACGGGCGGGCT  
CCTTACTCTGGATGGTGGCCACTTCGCCAGGCCGGCTTTCAGACTTCTCTACTGGTGGGCTGGCACCAC  
CTGGTACCGCCTGACCACAGCTGCCTCCCTCCTTGACGTCTTCGTTTTAACAGGCGCTTCTCGTCCCTG  
AAGACGTTCTCTGGTTCCTGCTGCCGCTGCTCTTGTGACGTGCCTGAGTATGGTGCTGGTATTCTTCT  
ACCCCTATGGGCTGCAGACATCCACCCTGCTTTGGTTTCTGGTGGGCAGCGAAGGACAGCAGGAGGCC  
GGATGAGGGCTGGGAAGCCAGAGACTCATCGCCACATTTCCAGGCTGAGCAGCGTGTATGTCCCGGGTA  
CACTCTCTGGAGCGGCTCTGGAAGCTCTTGTGCTGAATTTTCTCCAAGTGGCAGAAGGAGGCCATGC  
GGCTGGAACGCTCTGGAGTGCAGCAAGGGGCTCCTGGCCAGGGAGGTGGTGGTGGCTGAGCCACAGGA  
CACCTGGCGCTGCTGGAGGGGCTAGTGAGCCCGCTGAAGTGCCTGAAGGAGATTTCCGCAGGGAA  
ACTGCTGCTCGCATCCAGGAAGAACTGTCTGCCCTGAGAGCAGAGCATCAGCAAGACTCAGAAGACCTCT  
TCAAGAAGATCGTCCGGGCTCCAGGAGTCCGAGGCTCGCATCCAGCAGCTGAAGTCAAGTGGCAAAG  
CATGACCCAGGATCCTTCCAGGAGAGCTCTGTGAAGGAGCTGAGGCGGCTGGAGGACCAGCTGGCCGGC  
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CGCTGCAGAAAGAAGGTGTGATTGGAGTGACAGAGGAGCAGGTGCACCACATCGTGAAGCAGGCCCTGCA  
GCGCTACAGTGAAGACCGCATCGGGCTGGCAGACTACGCCCTGGAGTCAAGAGGGCCAGCGTCATCAGC  
ACCCGATGTTCTGAGACCTACGAGACCAAGACGGCCCTCCTCAGCCTTTCGGCATCCCCCTGTGGTACC  
ACTCCCAGTACCCCGAGTCATCCTCCAGCCAGATGTGACCCAGGCAACTGCTGGGCTTCCAGGGGCC  
ACAAGGCTTCGCGTGGTCCGCCTCTCTGCCCGCATCCGCCCCACAGCCGTTACCTTAGAGCATGTGCC  
AAGGCTTGTACCCAACAGCACTATCTCCAGTCCCCCAAGGACTTCGCCATCTTTGGGTTTGACGAAG  
ACCTGCAGCAGGAGGGGACACTCCTTGGCAAGTCACTTACGATCAGGACGGCGAGCCTATTAGACGTT  
TCACTTTCAGGCCCTACGATGGCCAGTACCAGGTGGTGGAGCTGCGGATCCTGACTAACTGGGGCCAC  
CCCAGTACACCTGCATCTACCGCTTCCAGAGTGCATGGGAGCCCCGCCAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG234768 representing NM\_001199580  
 Red=Cloning site Green=Tags(s)

```
MSRRSQRLTRYSGDDDDGSSSSGGSSVAGSQSTLFDKDSPLRTLKRKSSNMKRLSPAPQLGPSSDAHTSY
SESLVHESWFPFRSSLEELHGDANWGEDLRVRRRRGTGGSESSRASGLVGRKATEDFLGSSSGYSSSEDDY
VGYSDDVDQQSSSSRLRSVSRAGSLLMVATSPGRLFRLLYWWAGTTWYRLTTAASLLDVFVLRTRFSSL
KTFLWFLPLLLLLTCLTYGAWFYFYPYGLQTFHPALVSWWAAKDSRRPDEGWEARDSSPHFQAEQVRMSRV
HSLERRLEALAAEFSSNWQKEAMRLERLELRQGAPGGGGGLSHEDTLALLEGLVSRREAALKEDFRRE
TAARIQEELSALRAEHQDSEDLFKKIVRASQSEARIQQLKSEWQSMQESFQESSVKELRRLEDQLAG
LQQELAALALKQSSVAEEVGLLPQIQAVRDDVESQFPAWISQFLARGGGGRVGLLQREEMQAQLRELES
KILTHVAEMQGSAREAAASLSLTLQKEGIVGVTEEQVHHIVKQALQRYSEDRIGLADYALESGGASVIS
TRCSETYETKTALLSLFGIPLWYHSQSPRVILQPDVHPGNCWAFQGPQGFVAVRLSARIRPTAVTLEHVP
KALSPNSTISSAPKDFAIFFGDEDLQEGTLLGKFTYDQDGEPIQTFHFQAPTMATYQVVELRILTNWGH
PEYTCIYRFRVHGEPAH
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001199580

**ORF Size:** 2151 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\\_001199580.2](#)

**RefSeq Size:** 4006 bp

**RefSeq ORF:** 2154 bp

**Locus ID:** 25777

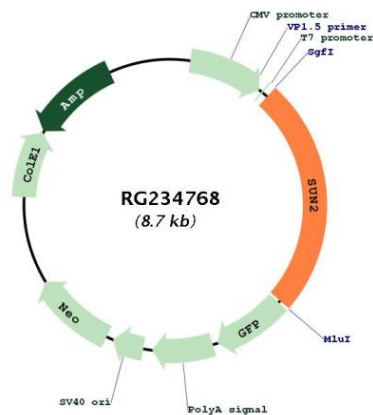
**UniProt ID:** [Q9UH99](#)

**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]

### Product images:



Circular map for RG234768