

## Product datasheet for **RC234768**

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

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SUN2 (NM_001199580) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SUN2
Synonyms:	UNC84B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC234768 representing NM\_001199580  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCCCGAAGAAGCCAGCGCCTCACGCGTACTCCAGGGTGACGATGACGGCAGCAGCAGCAGCGGAG  
 GGAGCTCGGTGGCTGGGAGTCAGAGCACCTGTTTAAAGACAGTCCTCTCAGGACCTTGAAGAGGAAATC  
 CAGCAACATGAAGCGCCTGTCCCAGCGCCACAGCTGGGCCCTCTGATGCACACACCTCCTACTAC  
 AGTGAGTCGCTGGTCCACGAGTCTGGTCCCACCCAGGAGCTCCCTGGAGGAACTGCATGGTGACGCCA  
 ACTGGGGTGAGGACCTGCGGGTGCAGGAGGAGAGGCACGGGTGGCTCAGAGAGCAGCAGGGCCAGCGG  
 GCTTGTGGGGCGCAAGGCCACCGAGGACTTCTGGGCTTCTCTCGGGTACTCCTCTGAGGACGACTAC  
 GTGGGCTACTCGGATGTGACCAGCAGAGTTCAGCTCGCGGCTCCGAAGCGCCGCTCACGGGCGGGCT  
 CCTTACTCTGGATGGTGGCCACTTCGCCAGGCCGGCTTTCAGACTTCTCTACTGGTGGGCTGGCACCAC  
 CTGGTACCGCCTGACCACAGCTGCCTCCCTCCTTGACGTCTTCGTTTTAACAGGGCCTTCTCGTCCCTG  
 AAGACGTTCTCTGGTTCCTGCTGCCGCTGCTCTTGTGACGTGCCTGAGTATGGTGGTGGTATTCTCT  
 ACCCCTATGGGCTGCAGACATCCACCCTGCTTTGGTTTCTGGTGGGCAGCGAAGGACAGCAGGAGGCC  
 GGATGAGGGCTGGGAAGCCAGAGACTCATCGCCACATTTCCAGGCTGAGCAGCGTGTATGTCCCGGGTA  
 CACTCTCTGGAGCGCGTCTGGAAGCTCTTGTGCTGAATTTCTCCAAGTGGCAGAAGGAGGCCATGC  
 GGCTGGAACGCTGGAGCTGCGGCAAGGGGCTCCTGGCCAGGGAGGTGGTGGTGGCTGAGCCACAGGA  
 CACCCTGGCGTCTGGAGGGGCTAGTGAGCCCGCTGAAGTGCCTGAAGGAGATTTCCGCAGGGAA  
 ACTGCTGCTCGCATCCAGGAAGAACTGTCTGCCCTGAGAGCAGAGCATCAGCAAGACTCAGAAGACCTCT  
 TCAAGAAGATCGTCCGGGCTCCAGGAGTCCGAGGCTCGCATCCAGCAGCTGAAGTCAGAGTGGCAAAG  
 CATGACCCAGGAGTCTTCCAGGAGAGCTCTGTGAAGGAGCTGAGGCGGCTGGAGGACCAGCTGGCCGGC  
 CTGCAGCAGGAGCTGGCGCTCTGGCACTGAAGCAGAGCTCGGTGGCGGAAGAAGTGGGCCTGCTGCCCC  
 AGCAGATCCAGGCGTGCAGGACGAGTGAATCTCAGTTCGCGGCTGGATCAGTCAGTTCCTTGCCTG  
 AGGTGGAGGGGGCCGCTGGGGCTCCTTCCAGAGAGAGGAGATGCAAGCTCAGCTGCGAGAGCTGGAGAGC  
 AAGATCTCACCCATGTGGCAGAGATGCAGGGCAAGTCGGCCAGGGAAGCCGCGGCTCCCTGAGCCTGA  
 CGCTGCAGAAAGAAGGTGTGATTGGAGTGACAGAGGAGCAGGTGCACCACATCGTGAAGCAGGCCCTGCA  
 GCGCTACAGTGAGGACCGCATCGGGCTGGCAGACTACGCCCTGGAGTCAGGAGGGGCCAGCGTCATCAGC  
 ACCCGATGTTCTGAGACCTACGAGACCAAGACGGCCCTCCTCAGCCTTTCGGCATCCCCCTGTGGTACC  
 ACTCCCAGTACCCCGAGTCATCCTCCAGCCAGATGTGACCCAGGCAACTGCTGGGCCTTCCAGGGGCC  
 ACAAGGCTTCGCGTGGTCCGCCTCTCTGCCCGCATCCGCCCCACAGCCGTTACCTTAGAGCATGTGCC  
 AAGGCTTGTACCCAACAGCACTATCTCCAGTGCSCCAAGGACTTCGCCATCTTTGGGTTTGACGAAG  
 ACCTGCAGCAGGAGGGGACACTCCTTGGCAAGTCACTTACGATCAGGACGGCGAGCCTATTAGACGTT  
 TCACTTTCAGGCCCTACGATGGCCAGTACCAGGTGGTGGAGCTGCGGATCCTGACTAACTGGGGCCAC  
 CCCGAGTACACCTGCATCTACCGCTTCCAGAGTGCATGGGAGCCCCGCCAC

**ACGCGT**ACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC234768 representing NM\_001199580  
 Red=Cloning site Green=Tags(s)

```
MSRRSQRLTRYSGDDDDGSSSSGGSSVAGSQSTLFKDSPLRTLKRKSSNMKRLSPAPQLGPSSDAHTSY
SESLVHESWFPFRSSLEELHGDANWGEDLRVRRRRGTGGSESSRASGLVGRKATEDFLGSSSGYSSEDDY
VGYSDDVQSSSSRLRSVSRAGSLLWMVATSPGRLFRLLYWWAGTTWYRLTTAASLLDVFVLTTRFSSL
KTFLWFLPLLLLLTCLTYGAWFYYPYGLQTFHPALVSWWAAKDSRRPDEGWEARDSSPHFQAEQVRMSRV
HSLERRLEALAAEFSSNWQKEAMRLERLELRQGAPGGGGGLSHEDTLALLEGLVSRREAALKEDFRRE
TAARIQEELSALRAEHQDSEDLFKKIVRASQSEARIQQLKSEWQSMQESFQESSVKELRRLEDQLAG
LQQELAALALKQSSVAEEVGLLPQQIQAVRDDVESQFPAWISQFLARGGGGRVGLLQREEMQAQLRELES
KILTHVAEMQGSAREAAASLSLTLQKEGIVGVTEEQVHHIVKQALQRYSEDRIGLADYALESGGASVIS
TRCSETYETKTALLSLFGIPLWYHSQSPRVILQPDVHPGNCWAFQGPQGFVAVRLSARIRPTAVTLEHVP
KALSPNSTISSAPKDFAIFFGDEDLQEGTLLGKFTYDQDGEPIQTFHFQAPTMATYQVVELRILTNWGH
PEYTCIYRFRVHGEPAH
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**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](#)

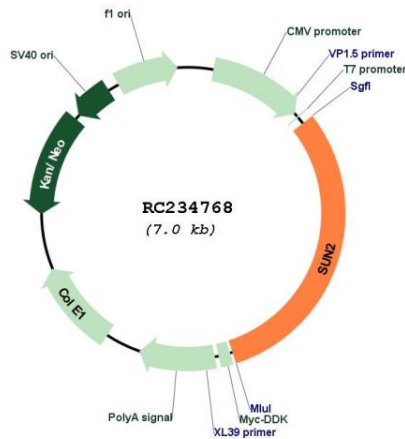
**Cytogenetics:** 22q13.1

**Protein Families:** Transmembrane

**MW:** 80.8 kDa

**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 RC234768