

## Product datasheet for **MC228793**

### Sun2 (NM\_001205346) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sun2 (NM_001205346) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Sun2
Synonyms:	B230369L08Rik; C030011B15; Unc84b
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC228793 representing NM\_001205346  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCGAGACGAAGCCAGCGCCTACTCGCTACTCTCAGGATGATAACGATGGCGGCAGCAGCAGCAGTG  
 GTGCGAGCTCCGTGGCAGGAAGCCAGGGCACCGTGTAAAGACAGTCCCTCAGGACTTTGAAGAGGAA  
 ATCCAGCAACATGAAGCACCTGTCCCCAGCTCCACAGCTGGGCCCTCCTCTGACTCCCACACCTCTAC  
 TACAGCGAGTCTGTGGTTCGAGAGTCTACATCGGCAGCCCCGGGCTGTGTCCCTCGCCAGGAGTGCC  
 TCCTGGATGACCACCTACACAGTGAAGCCACTGGAGCGGGACCTTCGGGGGAGGAGGAGAGGAAC  
 AGGTGGTCTGAGAGCAGCAAGGCCAATGGGCTCACCGCGGAGCAAGGCCTCAGAAGACTTTTCGGA  
 TCTTCTCAGGCTATTCTCAGAGGATGACCTTGCAAGGCTACACGGACTCAGACCAGCACAGCTCGGGT  
 CCAGGTTAAGGAGTGCAGCATCTCGGGCCGGCTCTTTGTCTGGACTCTGGTCACTTTCCAGGCCGCT  
 CTTTGGTCTTCTACTGGTGGATTGGCACCACTGGTACCGCTGACAAGTCTGCTCCCTCCTGGAT  
 GTCTTCGCTAAACCAGGCACTTCGCTGAACCTGAAGAGTTTTCTGTGGTTCTCTGCTCTGTCTAC  
 TCCTGACTGGTCTGACCTACGGTCTTGGCATTTCACCCCTTAGGGCTGCAGACATTGCAACCCGCTGT  
 GGTCTCCTGGTGGGCAGCAAGAGAGCAGGAAGCAGCCAGAGGTGTGGGAATCCAGAGACGCTCCAG  
 CACTTCCAGGCTGAGCAGCGCTTCTCTCCCGGTTCACTCTCTGGAGCGGCGTCTGGAAGCCCTTGCTG  
 CAGACTTTTCTCCAAGTGGCAGAAGGAGGCCATACGGCTGGAACGCCTGGAGTGCAGCAGGGGCTGC  
 TGGCAATGGAGGAGCAGTAGCCTGAGCCATGAAGATGCCCTGTCTCTCCTAGAAGGGTTGGTGAAGCCG  
 CGCAGGCTACCTGAAGGAGACTTGCAGGGACACAGTGGCTCATATCCAGGAAGAATTGGCTACCC  
 TGAGGGCAGAGCATCACCAAGACTCGGAAGATCTCTCAAGAAGATCGTCCAGGCCTCAGGAGTCCGA  
 AGCCCGAGTCCAGCAGCTGAAGACAGAATGGAAGAGCATGACCCAGGAGGCTTCCAGGAGACTCTGTG  
 AAGGAGCTGGGACGGCTGGAAGCCAGCTGGCCAGCCTGCAGCAGGAGTGGTGCCTGACTCTGAAGC  
 AGAACTCGGTGGCAGATGAAGTGGGCTGCTGCCACAGAAGATCCAGGCTGCCAGGGCTGATGTGAATC  
 CCAGTTCCTGACTGGATCAGGCAGTTCCTTCTTGGAGACAGGGTGCAGCAGCGGGCTCCTGCAGAGA  
 GATGAGATGCACGCTCAGCTGCAGGAGCTGGAGAACAAGATCCTTACCAAGATGGCTGAGATGCAGGCA  
 AGTCAGCCAGGGAGGCCGACGCTCCCTGGGACAGATACTGCAGAAAGAAGGCATAGTTGGGGTGCAG  
 GGAGCAGGTGCACCGGATCGTCAAGCAGGCCCTGCAGCGCTACAGTGAAGACAGGATTGGAATGGTGGAT  
 TACGCCCTGGAATCAGGAGGAGCCAGTGTATCAGCACCCGCTGCTCTGAGACTTATGAGACCAAGACGG  
 CACTCCTCAGCCTCTTTGGCATCCCCGTGGTACCCTCCAGTCCAGTCCGGTATTCTGCAGCCAGA  
 TGTGCACCCAGGCAACTGCTGGGCTTCCAGGGGCCCCAGGGCTTTGCAGTGGTCCGCTCTCTGCTCGA  
 ATCCGACTACAGCCGTTACCTTAGAGCAGTGCCCAAGGCTTGTACCCAACAGCACTATCTCCAGTG  
 CTCCCAAGGACTTCGCCATCTTTGGCTTCGATGAAGACCTGCAGCAGGAAGGGACTTCTTGGCACGTT  
 TGCTACGACCAGGATGGGGAGCCATCCAGACCTTCTATTTCCAGGCCTAAGATGGCCACATACCAA  
 GTTGTGGAGCTTCGGATCCTGACCAACTGGGGCCACCTGAGTACACGTGTATCTACCGCTTCCGGTGC  
 ACGGAGAGCCTGCCCC**AG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001205346  
**Insert Size:** 2190 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

<b>OTI Annotation:</b>	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001205346.1</a> , <a href="#">NP_001192275.1</a>
<b>RefSeq Size:</b>	3803 bp
<b>RefSeq ORF:</b>	2190 bp
<b>Locus ID:</b>	223697
<b>UniProt ID:</b>	<a href="#">Q8BJS4</a>
<b>Cytogenetics:</b>	15 E1
<b>Gene Summary:</b>	<p>As a component of the LINC (Linker of Nucleoskeleton and Cytoskeleton) complex, involved in the connection between the nuclear lamina and the cytoskeleton. The nucleocytoplasmic interactions established by the LINC complex play an important role in the transmission of mechanical forces across the nuclear envelope and in nuclear movement and positioning. Specifically, SYNE2 and SUN2 assemble in arrays of transmembrane actin-associated nuclear (TAN) lines which are bound to F-actin cables and couple the nucleus to retrograde actin flow during actin-dependent nuclear movement. Required for interkinetic nuclear migration (INM) and essential for nucleokinesis and centrosome-nucleus coupling during radial neuronal migration in the cerebral cortex and during glial migration. Required for nuclear migration in retinal photoreceptor progenitors implicating association with cytoplasmic dynein-dynactin and kinesin motor complexes, and probably B-type lamins; SUN1 and SUN2 seem to act redundantly. The SUN1/2:KASH5 LINC complex couples telomeres to microtubules during meiosis; SUN1 and SUN2 seem to act at least partial redundantly. Anchors chromosome movement in the prophase of meiosis and is involved in selective gene expression of coding and non-coding RNAs needed for gametogenesis. Required for telomere attachment to nuclear envelope and gametogenesis. May also function on endocytic vesicles as a receptor for Rab5-GDP and participate in the activation of Rab5.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (2) uses an alternate in-frame splice site in the coding region, compared to variant 1. The encoded isoform (2) is shorter than isoform 1. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.</p>