

## Product datasheet for **MC228799**

### Sun2 (NM\_001205345) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sun2 (NM_001205345) 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:** >MC228799 representing NM\_001205345  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCGAGACGAAGCCAGCGCCTACTCGCTACTCTCAGGATGATAACGATGGCGGCAGCAGCAGCAGT  
 GTGCGAGCTCCGTGGCAGGAAGCCAGGGCACCGTGTAAAGACAGTCCCTCAGGACTTTGAAGAGGAA  
 ATCCAGCAACATGAAGCACCTGTCCCGACTCCACAGCTGGGCCCTCCTCTGACTCCCACACCTCTAC  
 TACAGCGAGTCTGTGGTTCGAGAGTCTACATCGGCAGCCCCGGGCTGTGTCCCTCGCCAGGAGTGCC  
 TCCTGGATGACCACCTACACAGTGAAGCCACTGGAGCGGGACCTTCGGGGGAGGAGGAGAGGAAAC  
 AGGTGGTCTGAGAGCAGCAAGGCAATGGGCTCACCGCGGAGAGCAAGGCCTCAGAAGACTTTTTCGGA  
 TCTTCTCAGGCTATTCTCAGAGGATGACCTTGCAAGCTACACGGACTCAGACCAGCACAGCTCGGGT  
 CCAGGTTAAGGAGTGCAGCATCTCGGGCCGGCTCTTTGTCTGGACTCTGGTCACTTTCCAGGCCGCT  
 CTTTGGTCTTCTACTGGTGGATTGGCACCACCTGGTACCGCTGACAAGTCTGCTCCCTCCTGGAT  
 GTCTTCGCTCAACCAGGTCCAGGCACTTCTCGCTGAACCTGAAGAGTTTTCTGTGGTTCCTTCTGCTCT  
 TGCTACTCCTGACTGGTCTGACCTACGGTCTTGGCATTAAAAACCCCTTAGGGCTGCAGACATTGAACC  
 CGCTGTGGTCTCCTGGTGGGCGAGCAAAAGAGAGCAGGAAGCAGCCAGAGGTGTGGGAATCCAGAGACGCC  
 TCCCAGCACTCCAGGCTGAGCAGCGCTTCTCTCCCGGTTCACTCTCTGGAGCGGCTGTGGAAGCCC  
 TTGCTGCAGACTTTTCTCCAAGTGGCAGAAAGGAGCCATACGGCTGGAACGCCTGGAGCTGCGGCAGGG  
 GGCTGTGGCCATGGAGGAGGAGTGCCTGAGCCATGAAGATGCCCTGTCTCCTAGAAGGTTGGTG  
 AGCCCGCGGAGGCTACCTGAAGGAGGACTTGGCAGGGACACAGTGGCTCATATCCAGGAAGAATTGG  
 CTACCCCTGAGGGCAGAGCATACCAAGACTCGGAAGATCTTTCAAGAAGATCGTCCAGGCCCTCAGGA  
 GTCCGAAGCCCGAGTCCAGCAGCTGAAGACAGAATGGAAGAAGCATGACCCAGGAGGCTTCCAGGAGAGC  
 TCTGTGAAGGAGCTGGGACGGCTGGAAGCCAGCTGGCCAGCCTGCGGCAGGAGCTGGCTGCCCTGACTC  
 TGAAGCAGAAGTCCGTTGGCAGATGAAGTGGGCTGCTGCCACAGAAGATCCAGGCTGCCAGGGCTGATGT  
 GGAATCCAGTTCCTGACTGGATCAGGCAGTTCCTTCTGGAGACAGGGGTGCGGCAGCGGGCTCCTG  
 CAGAGAGATGAGATGCACGCTCAGCTGCAGGAGCTGGAGAACAAGATCCTTACCAAGATGGCTGAGATGC  
 AGGGCAAGTCAGCCAGGGAGGCCGAGCGTCCCTGGGACAGATACTGCAGAAAGAAGGCATAGTTGGGGT  
 GACAGAGGAGCAGGTGCACCGGATCGTCAAGCAGGCCCTGCAGCGCTACAGTGAGGACAGGATTGGAATG  
 GTGGATTACGCCCTGGAATCAGGAGGAGCCAGTGTATCAGCACCCTGCTCTGAGACTTATGAGACCA  
 AGACGGCACTCCTCAGCCTCTTTGGCATCCCCCTGTGGTACCCTCCAGTCACTCGGGTCACTTCTGCA  
 GCCAGATGTGACCCAGGCAACTGCTGGGCTTCCAGGGCCCCAGGGCTTTGCAGTGGTCCGCCTCTCT  
 GCTCGAATCCGACCTACAGCCGTTACCTTAGAGCACGTGCCCAAGGCCTTGTACCCAACAGCACTATCT  
 CCAGTGTCCCAAGGACTTCGCCATCTTTGGCTTCGATGAAGACCTGCAGCAGGAAGGGACACTTCTTG  
 CAGTTTGGCTACGACCAGGATGGGAGCCCATCCAGACTTCTATTTCCAGGCCCTAAGATGGCCACA  
 TACCAAGTTGTGGAGCTTCGGATCCTGACCAACTGGGGCCACCCTGAGTACACGTGTATCTACCGCTTCC  
 GGTGTCACGGAGAGCCTGCCACTAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** SgfI-MluI  
**ACCN:** NM\_001205345  
**Insert Size:** 2196 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_001205345.1</a> , <a href="#">NP_001192274.1</a>
<b>RefSeq Size:</b>	3809 bp
<b>RefSeq ORF:</b>	2196 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 (1) represents the longest transcript and encodes the longest 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>