

## Product datasheet for **MR231086**

### Sun1 (NM\_001256118) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Sun1 (NM_001256118) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sun1
Synonyms:	4632417G13Rik; 5730434D03Rik; mKIAA0810; Unc84a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR231086 representing NM\_001256118  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGACTTTTCTCGGCTGCACACGTACACCCACCCAGTGTGTGCCGGAGAACACTGGCTACACTTACG  
 CACTCAGTTCTAGTTACTCGTCGGATGCTCTGGATTTTGAAGTACTGAGCACAAGTTGGAACCTGTATTTGA  
 CTCTCCAAGGATGTCGCCCGCAGCTTTCGCTGCTGGTACAAACAGCTTCGTACAGCAGTGGGGACAGCCAG  
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 AGAGAAGAAGTGAAGCAAGCCAGCTTTTAGTATCAACCACCTGTGAGGGAAGGGCTTGTCTCGAGCAC  
 AAGCCATGACAGCTCTTGCAGCCTGCGGAGTGCCACGGTGTGCGGCACCTGTGCTAGATGAGTCCCTG  
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 GCTGGTACCAATTTGTTACTTTGATTTCTTGGTGAATGTCTTTCTTCTTACCAGGTGCCTTCGAAATAT  
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 GTGATCCAGCCCAGCATCTACCCAGGGAATTGCTGGGCGTTCAAAGGTTCCAGGGGTACCTGGTGGTGC  
 GTTGTCCATGAAGATCTACCAACCACATTACCATGGAACACATTCCAAGACTATACCCACTGG  
 TAACATCTCCAGTGCCTCCAAAGACTTTGCAGTCTATGGACTGGAACCGGAGTATCAAGAAGAGGGGCAG  
 CCTCTGGGACGGTTCACCTATGACCAGGAAGGAGACTCACTCCAGATGTTCCACACACTGGAAAGACCTG  
 ACCAAGCCTTCCAGATAGTAGAGCTCCGGTCTGTCCAACCTGGGGCCACCCTGAGTACACTTGCCTCTA  
 CCGGTTCCGAGTCCAGGAGAGCCATCCAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR231086 representing NM\_001256118  
Red=Cloning site Green=Tags(s)

```
MDFSRLHTYTPPQCVPEPTGYTYALSSSYSSDALDFETEHLKLEPVFSDPRMSRRSLRLVTTASYSSGDSQ
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IREQTKVDHFGLDDDDGLKGGNKAATQNGELAAEVASSNGYTCRDCRMLSARTDALTAHSAIHGTTSR
VYSRDRTLKPRKAASGTFWWLGGWYQFVTLISWLVNLFLLTRCLRNICRVFVLLPLLLLLGAGVSLWGQ
GNFFSLLPVLNWTAMQPTQRVDDSKGMHRPGPLPPSPPKVDHKASQWPQESDMGQKVASLSAQCHNHDE
RLAELTVLLQKLQIRVDQVDDGREGLSLWKNVVGQHLQEMGTIEPPDAKTFDMTFHHDHEVRLSNLEDV
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QLMFSQDQGGSEWLEKLSRFVSKDELQVLLHDLKLLQNIHITVTGQAPTSEIIVSAVNQAGI
SGITEAQAHIIVNNALKLYSQDKTMVDFALESGGGSILSTRCSEYETKTALLSLFGVPLWYFSQSPRV
VIQPDIIYPGNCWAFKGSQGYLVRLSMKIYPTTFMEHIPKTLSPGTGNISSAPKDFAVYGLETEYQEEGQ
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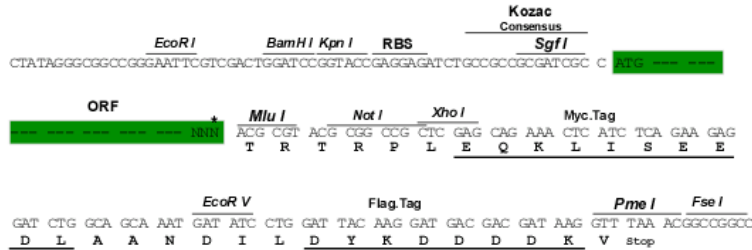
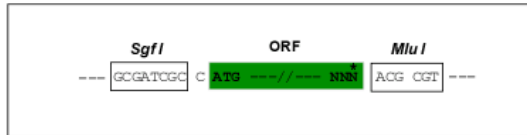
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001256118

**ORF Size:** 2271 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\\_001256118.1](#), [NP\\_001243047.1](#)

**RefSeq Size:** 3602 bp

**RefSeq ORF:** 2274 bp

**Locus ID:** 77053

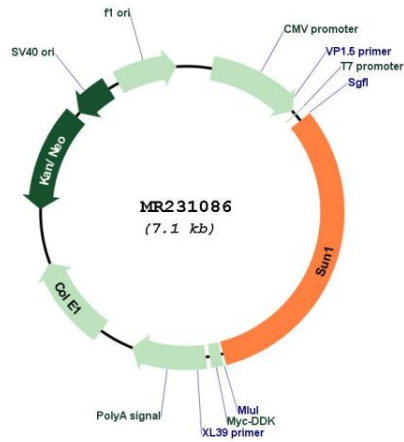
**UniProt ID:** [Q9D666](#)

**Cytogenetics:** 5 G2

**MW:** 85.1 kDa

**Gene Summary:** As a component of the LINC (Linker of Nucleoskeleton and Cytoskeleton) complex involved in the connection between the nuclear lamina and the cytoskeleton (PubMed:20711465, PubMed:16380439, PubMed:24062341, PubMed:25892231, PubMed:26842404). 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 (PubMed:19874786). 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 (PubMed:19874786). Involved in telomere attachment to nuclear envelope in the prophase of meiosis implicating a SUN1/2:KASH5 LINC complex in which SUN1 and SUN2 seem to act at least partial redundantly (PubMed:17543860, PubMed:19211677, PubMed:19509342, PubMed:24062341, PubMed:25892231, PubMed:26842404). Required for gametogenesis and involved in selective gene expression of coding and non-coding RNAs needed for gametogenesis (PubMed:17543860). Helps to define the distribution of nuclear pore complexes (NPCs) (PubMed:17724119). Required for efficient localization of SYNE4 in the nuclear envelope (PubMed:23348741). May be involved in nuclear remodeling during sperm head formation in spermatogenesis (PubMed:20711465). May play a role in DNA repair by suppressing non-homologous end joining repair to facilitate the repair of DNA cross-links (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR231086