

Product datasheet for **MC229097**

Sun1 (NM_001256115) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sun1 (NM_001256115) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Sun1
Synonyms:	4632417G13Rik; 5730434D03Rik; mKIAA0810; Unc84a
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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Fully Sequenced ORF: >MC229097 representing NM_001256115
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGACTTTTCTCGGCTGCACACGTACACCCACCCAGTGTGTGCCGAGAACACTGGCTACACTTACG
 CACTCAGTTCTAGTTACTCGTCGGATGCTCTGGATTTTGAAGTACTGAGCACAAGTTGGAACCTGTATTGA
 CTCTCCAAGGATGTCGCCCGCAGCTTTCGCTGCTGGTACAAACAGCTTCGTACAGCAGTGGGGACAGCCAG
 GCTATTGATTCGCACATTAGCACCAGCAGGGCCACCCCGCCAAGGGGAGAGAAACCAGGACAGTCAAAC
 AGAGAAGAAGTGAAGCAAGCCAGCTTTTAGTATCAACCACCTGTGAGGAAAGGGCTTGTCTCGAGCAC
 AAGCCATGACAGCTCTTGCAGCCTGCGGAGTGCCACGGTGTGCGGCACCTGTGCTAGATGAGTCCCTG
 ATTCGTGAGCAGACCAAAGTGGACCCTTCTGGGGTCTCGATGATGATGGTGACCTTAAAGTGGAAATA
 AAGCTGCCACTCAGGAAATGGTGAAGTGGCAGCAGAGGTGGCGAGCAGCAATGGATACACTTCCCGTGA
 CTGCAGGATGCTCTCAGCGCAGTGCAGCCTCACAGCCACTCTGCCATCCACGGGACCACCTCCAGG
 GTGTAATCCAGAGACAGGACTCTCAAACCACGCGGAGTGTCTTTTACCTGGATAGGACTCTGTGGCTGG
 CCAAGTCCACCTCCTCATCTTTGCATCATTTATAGTTCAACTTTTCAAAGTGGTTTTAATGAAGCTCAA
 TTTTGAAGTACAAATTGAAAGGCTATGAATCCAGAGCTTATGAATCACAGAGCTATGAGACAAAGAGC
 CATGAGTCAGAAGCCATCTCGTCACTGTGGGAGGATGACTGCCGAGAACTTTCCAGAGTGGACGGGG
 AGTCCCTGTGTGACCTCTTGGTTCAAGCACTGCGAAGGACTAGAGCTGCCGGGTGGTCTGTGGCCGAGGC
 CGTGTGGTCCGTGCTCTGGCTGGCTGTCTGCTCCAGGAAAGGCAGCCTCGGAACTTCTGGTGGCTA
 GGGAGCGGCTGGTACCAATTTGTTACTTTGATTTCTGGCTGAATGTCTTTCTTACCAGTGCCTTCC
 GAAATATTTGCAAGGTTTTGTCTTCTCCACTCCACTTTTACTAGGTGCTGGTGTCTCCCTG
 GGGCAGGAAACTTCTTCTCACTCTACCAGTGTGAACTGGACGGCCATGCAGCCAACACAGAGGGTG
 GACGATCCAAGGCATGCATAGACCTGGCCCTTCCCGGAGCCACCTCAAAGGTTGATCACAAAGG
 CTTCCAGTGGCCTCAGGAGAGTGCATGAGGAGCAAGGTAGCTTCTTTGAGTGCAGTGCACAAACCA
 TGATGAGAGACTGCAGAGCTGACAGTCTGCTTCCAGAACTACAGATACGGGTAGACCAAGTGGATGAC
 GGCAGGAAAGGGTGTCACTGTGGTCAAGAATGTGGTGGACAGCACCTGCAGGAGATGGGCACCATAG
 AACCCATGATGTAAGACTGACTTCATGACTTCCACCATGACCATGAAGTGCCTCTCCAAGTGGAA
 AGATGTTCTTAGAAAAGTGCAGAAAAAATCTGAGGCTATCCAGAAGGAGCTGGAAGAAACCAAGCTGAAA
 GCAGGCAGCAGGGATGAAGAGCAGCCCTCCTTGACCGTGTGCAGCACCTAGAAGTGAAGTGAAGCTGT
 TGAAGTACAGCTGTGAGACTGGCAGCATCTGAAGACCAGCTGTGAGCAGGCTGGGGCCCGCATCCAGGA
 GACTGTGCAGCTCATGTTCTCTGAGGATCAGCAGGGCGGTTCCCTCGAGTGGCTATTAGAGAAGCTTCT
 TCTCGGTTCTGAGCAAGGATGAGTGCAGGTGCTTACATGACCTTGAAGTGCAGAACTGCTGCAGAATA
 TCACACACCACATCACCGTGCAGGACAGGCCCGACATCCGAGGCTATTGTGTCTGCCGTGAATCAGGC
 AGGGATTTAGGAATCACAGAAGCGCAAGCACATATCATTGTGAACAATGCTCTGAAGCTGACTCCCAA
 GACAAGACGGGGATGGTGGACTTTGCTCTGGAGTCTGGAGGTGGCAGCATCCTAAGCACTCGGTGCTCTG
 AGACCTATGAGACCAAGACGGCACTGCTGAGCCTGTTGGGGTCCACTGTGGTACTTCTCACAGTCAAC
 TCGAGTGGTGATCCAGCCCGACATCTACCAGGGAATTGCTGGGGTTCAAAGGTTCCAGGGGTACCTG
 GTGGTGGGTTGTCCATGAAGATCTACCAACCACATTACCATGGAACACATTCCAAAGACACTATCAC
 CCACTGGTAACATCTCCAGTGCACCCAAAGACTTTGCAGTCTATGGACTGAAACGGAGTATCAAGAAGA
 GGGGCAGCCTCTGGGACGGTTCACCTATGACCAGGAAGGAGACTCACTCCAGATGTTCCACACACTGGAA
 AGACCTGACCAAGCCTTCCAGATAGTAGAGCTCCGGTCTGTCCAAGTGGGGCCACCCTGAGTACACTT
 GCCTTACCGGTTCCGAGTCCACGGAGAGCCATCCAGTAG

ACGGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
 ACCN: NM_001256115

Insert Size:	2631 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).
OTI Annotation:	Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
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:	<ol style="list-style-type: none">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:	<u>NM_001256115.1</u> , <u>NP_001243044.1</u>
RefSeq Size:	4022 bp
RefSeq ORF:	2631 bp
Locus ID:	77053
UniProt ID:	<u>Q9D666</u>
Cytogenetics:	5 G2

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]

Transcript Variant: This variant (2) lacks an in-frame exon in the coding region, compared to variant 1. The resulting isoform (2) is shorter than isoform 1.