

Product datasheet for **MR225632**

Sun2 (NM_194342) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sun2 (NM_194342) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sun2
Synonyms:	B230369L08Rik; C030011B15; Unc84b
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>MR225632 representing NM_194342
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTCGAGACGAAGCCAGCGCCTACTCGCTACTCTCAGGATGATAACGATGGCGGCAGCAGCAGCAGTG
GTGCGAGCTCCGTGGCAGGAAGCCAGGGCACCGTGTAAAGACAGTCCCTCAGGACTTTGAAGAGGAA
ATCCAGCAACATGAAGCACCTGTCCCGACTCCACAGCTGGGCCCTCCTCTGACTCCCACACCTCTAC
TACAGCGAGTCTGTGGTTCGAGAGTCTACATCGGCAGCCCCGGGCTGTGTCCCTCGCCAGGAGTGCC
TCCTGGATGACCACCTACACAGTGAAGCCACTGGAGCGGGACCTTCGGGGGAGGAGGAGAGGAAC
AGGTGGTCTGAGAGCAGCAAGGCCAATGGGCTCACCGCGGAGCAAGGCCTCAGAAGACTTTTCGGA
TCTTCTCAGGCTATTCTCAGAGGATGACCTTGACGGCCGCTCTTTGGTCTTCTACTGGTGGATTG
GCACCACCTGGTACCGCCTGACAACCTGCTCCCTCCTGGATGTCTTCGTCTAACCCAGTCCAGGCA
CTTCTCGTGAACCTGAAGAGTTTTCTGTGGTTCCTTCTGCTCTTGTACTCTGACTGGTCTGACCTAC
GGTGTGGCATTTCACCCCTTAGGGCTGCAGACATTGCAACCCGCTGTGGTCTCCTGGTGGGCAGCAA
AAGAGAGCAGGAAGCAGCCAGAGGTGTGGGAATCCAGAGACGCCTCCAGCACTCCAGGCTGAGCAGCG
CGTTCTCTCCCGGTTCACTCTCTGGAGCGGCTCTGGAAGCCCTTGCTGCAGACTTTTCCTCAACTGG
CAGAAGGAGGCCATACGGCTGGAACGCCTGGAGCTGCGGCAGGGGGCTGTGGCCATGGAGGAGGCAGTA
GCCTGAGCCATGAAGATGCCCTGTCTCTCTAGAAAGGTTGGTGAGCCCGCGGAGGCTACCCTGAAGGA
GGACTTGGCAGGACACAGTGGCTCATATCCAGGAAGAATTGGTACCCTGAGGGCAGAGCATCACAA
GACTCGGAAGATCTTTCAAGAAGATCGTCCAGGCCTCTCAGGAGTCCGAAGCCGAGTCCAGCAGCTGA
AGACAGAATGAAAAGCATGACCCAGGAGGCCTCCAGGAGAGCTCTGTGAAGGAGCTGGGACGGCTGGA
AGCCCAGCTGGCCAGCCTGCGGCAGGAGTGGCTGCCCTGACTCTGAAGCAGAACTCGGTGGCAGATGAA
GTGGGCTGTGCCACAGAAGATCCAGGCTGCCAGGGCTGATGTGGAATCCAGTTCCTGACTGGATCA
GGCAGTTCCTTCTGGAGACAGGGGTGCGCGCAGCGGGCTCCTGCAGAGAGATGAGATGCACGCTCAGCT
GCAGGAGCTGGAGAACAAGATCCTTACCAAGATGGCTGAGATGCAGGGCAAGTCAGCCAGGGAGGCCGCA
GCGTCCCTGGGACAGATACTGCAGAAAGAAGGCATAGTTGGGGTGACAGAGGAGCAGGTGCACCGGATCG
TCAAGCAGGCCCTGCAGCGCTACAGTGAAGACAGGATTGGAATGGTGGATTACGCCCTGGAATCAGGAGG
AGCCAGTGTATCAGCACCCGCTGCTCTGAGACTTATGAGACCAAGACGGCACTCCTCAGCCTCTTGGC
ATCCCCCTGTGGTACCACTCCCAGTCACTCGGGTCATTCTGCAGCCAGATGTGCACCCAGGCAACTGCT
GGGCTTCAGGGGCCCCAGGGCTTTCAGTGGTCCGCTCTCTGCTCGAATCCGACCTACAGCCGTAC
CTTAGAGCACGTGCCAAGGCCTTGTACCCAACAGCACTATCTCCAGTGTCCCAAGGACTTCGCCATC
TTTGGCTTCGATGAAGACCTGCAGCAGGAAGGGCACTTCTTGGCACGTTTGGCTACGACCAGGATGGGG
AGCCCATCCAGACCTTCTATTTCCAGGCCTTAAGATGGCCACATACCAAGTTGTGGAGCTTCGGATCCT
GACCAACTGGGGCCACCCTGAGTACACGTGTATCTACCGTTCGGGTGCACGGAGAGCCTGCCAC

ACGCGTACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR225632 representing NM_194342
 Red=Cloning site Green=Tags(s)

MSRRSQRLTRYSDNDGGSSSSGASSVAGSQGTVFKDSPLRTLKRKSSNMKHLSPAPQLGPSSDSHTSY
 YSESVVRESYIGSPRAVSLARSALLDDHLHSEPYWSDLRGRRRRGTGGSESSKANGLTAEKASEDFFG
 SSSGYSSSEDDLGRFLGLLYWWIGTTWYRLTTAASLLDVFVLRSRHFSNLKSFLLWFLLLLLLLTGLTY
 GAWHFYPLGLQTLQPAVVSWWAAKESRKQPEVWESRDASQHFQAEQRVLSRVHSLERRLEALAADFSSNW
 QKEAIRLERLELRQGAAGHGGSSLSHEDALSLEGLVSRREATLKEDLRDRTVAHIQEELATLRAEHHQ
 DSEDLFKKIVQASQSEARVQQLKTEWKSMTQEAFFQESSVKELGRLEAQLASLRQELAALTKQNSVADE
 VGLLPQKIQAARADVESQFPDWIRQFLLGDRGARSGLLQRDEMHQLELENKILTKMAEMQKSAAREA
 ASLGQILKQEGIVGVTEEQVHRIVKQALQRYSEDRIGMVDYALESGGASVISTRSETYETKTALLSLFG
 IPLWYHSQSPRVLQPDVHPGNCWAFQGPQGFVAVRLSARIRPTAVTLEHVPKALSPNSTISSAPKDFAI
 FGFDEDLQQEGLLGTFAFDQDGEPIQTFYFQASKMATYQVVELRILTNWGHPEYTCIYRFRVHGEPAH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9004_f08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_194342

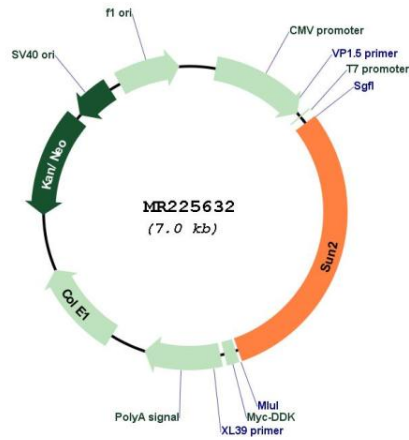
ORF Size: 2097 bp

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:	<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:	NM_194342.3 , NP_919323.2
RefSeq Size:	3711 bp
RefSeq ORF:	2100 bp
Locus ID:	223697
UniProt ID:	Q8BJS4
Cytogenetics:	15 E1
MW:	78.6 kDa
Gene Summary:	<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>

Product images:



Circular map for MR225632