

Product datasheet for MC224127

Sin3a (NM_011378) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sin3a (NM_011378) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Sin3a
Synonyms:	AW553200; mKIAA4126; mSin3A; Sin3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC224127 representing NM_011378 Red=Cloning site Blue=ORF

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCCGCATCGCC

ATGAAGCGACGTTTGGATGACCAGGAATCACCAGTGTATGCAGCCCAGCAGCGAAGGATTCTGGGAGCA
CAGAGGCTTTTCTCACCAGCACCAGGTCCTTGCCCCGGCCCCCTCTGTGTATGAAGCAGTGTCTGAGAC
CATGCAGTCAGCTACAGGCATTCAGTACTCAGTGGCACCCAACTACCAGGTTTCAGCTGTGCCACAAAGT
TCTGGCAGTCATGGGCCCGCCATAGCAGCAGTTCATAGCAGCCATCATCACCAACAGCTGTCCAGCCTC
ATGGAGGCCAGGTGGTCCAGAGCCATGCCACCCAGCACCACAGTTGCACCAGTACAGGGACAGCAGCA
GTTTCAGAGGCTCAAGGTGGAAGACGCCCTGTCTATCTTGACCAGGTGAACTGCAGTTTCGGTAGTCAG
CCTCAGGTCTACAATGATTTCTTGACATCATGAAGGAATTTAAATCTCAGAGCATTGATACTCCAGGAG
TGATTAGCCGAGTGTCCAGCTATTTAAAGGCCACCCTGATCTGATCATGGGCTTTAACACCTTCTTGCC
TCCTGGCTACAAAATTGAGGTGCAGACTAATGACATGGTGAACGTGACAAACCTGGCCAAGTTCATCAG
ATTCACCCATGGCATCCAGCCCCAGCCTCAGCCACCACCTCAGCATCCTTCCAGCCTTCATCCCACT
CAGCTCCCACTCCTGCTCAGCCAGCTCCTCAGCCACAGCTGCCAAAGTCAGCAAGCCTTCCCACTACA
AGCACATACTCCAGCCAGTCAGCAGACTCCCCACTCCACCATATGCATCCCCACGTTCTCCACCAGTC
CAGCCTCACACACCAGTGACAATCTCCTTGGGGACAGCTCCATCTTTGCAAAACAATCAGCCTGTGGAGT
TTAATCATGCCATCAACTATGTTAATAAGATCAAGAACAGATTCCAGGGCCAACAGACATCTACAAAGC
ATTCTTGAGATTTTGCACATACCAGAAAGAACAGCGGAATGCCAAGGAAGCTGGAGGAACTACACT
CCAGCTTTGACTGAGCAAGAGGTGTATGCCAGGTGGCTCGACTCTTCAAAAACAGGAAGATTTGTTGT
CTGAATTTGGACAGTTCTTGCCAGATGCCAACAGCTCAGTGCTTTTAAGCAAAACAATGCTGAGAAGGT
TGATTCTGTGAGAAATGACCATGGAGGCACTGTGAAGAAGCCCCAACTGAATAACAAGCCACAGAGGCC
AGTCAGAAATGGCTGCCAGATCCGAGGCACTCTGGAACAGGAGCCACACCTCCAGTGAAGAAAAACCCA
AACTGATGAGTCTAAAAGAGTCTCAATGGCAGATGCCAGCAAGCATGGTGTGGAACGGAATCATTATT
TTTGATAAGGTTGAAAGGCTCTCGGAGTGCAGAGGCCTATGAAAACCTCCTTCGTTGCCTTGTATC



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TTTAATCAGGAGGTGATCTCTCGGGCCGAGCTTGACAGCTAGTCTCTCCTTTCTGGGAAATCCCTG
AATTGTTTAAATTGGTTTAAAACTTTTTGGGCTATAAGGAGTCTGTACATCTGGAAGCTTTCCAAAGGA
ACGAGCTACAGAAAGCATTGCCATGGAGATAGACTATGCCTCTTGTAACGAGCTGGGCTCTAGCTACCGA
GCCCTACCGAAAAGTTACCAGCAGCCCAAGTGCACGGGACGGACTCCTCTGTGTAAGAGGTTTTAAATG
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AGAACATATTTACCGTTGTGAAGATGAACGATTTGAGCTTGATGTGGTTCTTGAGACCAATCTTGCAACA
ATCCGGGTTTTAGAAGCAATACAGAAAAAATTTCTCGCTTGCTGCTGAGGAACAAGCCAAATTTTCGCT
TGGATAACACCCTTGGAGGCACGTCCGAAGTCATCCATCGAAAAGCACTCCAGAGGATATATGCTGACAA
AGCAGCTGATATCATCGATGGCCTGAGGAAGAACCCTCCATTGCTGTTCCGATTGTCTTAAAAGGTTG
AAGATGAAAGAAGAAGAGTGCGGAGAAGCTCAGAGAGGCTTCAACAAGGTCTGGCGAGAGCAAAATGAGA
AGTACTACTTGAAGTCTCTGGATCACCAGGCATCAACTTCAAGCAGAACGACACTAAGGTCTTGAGGTC
TAAGAGCTTACTCAATGAGATCGAGAGCATCTATGACGAGAGGCAAGAGCAGGCTACAGAAGAGAACGCT
GGTGTACCTGTTGGCCGCACCTCTCTTGCCTATGAAGACAAACAGATACTAGAAGATGCTGCTGCTC
TGATTATCCACCATGTGAAGAGGCAACAGGCATTGAGAAAGAGGACAAATACAAATCAAGCAATCAT
GCACCATTTCATTCTGACCTGTGTTTGTCTCAGAGAGGCGATCTCTCAGATGTGAAGAAGAGGAGGAG
GAAGAAATGGATGTGGATGAAGCAACAGGAGCACCTAAGAAGCACAATGGTGTGGGGGAGCCCCCTA
AGTCCAAGTTGCTATTTAGTAACACAGCAGCTCAAAAGTTAAGAGGGATGGATGAAGTATATAACCTTTT
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TGTTCCCAAGCTGAACGGCAAAATGAAGAAGAAAACCGAGAGAGAGAATGGGAACGGGAGGTGCTAGGCA
TAAAGCGAGACAAGAGTGATAGTCTGCCATACAACTACGTCTCAAGGAACCTATGGATGTTGATGTAGA
AGATTATTACCCAGCTTTCTGGACATGGTGCGGAGCCTGCTTGATGGCAACATAGACTCATCACAGTAT
GAAGATTCACTGAGAGAGATGTTCAACATTATGCCTACATTGCCTTTACTATGGACAAATTAATCCAGA
GCATCGTCAGACAGCTACAGCACATCGTCAGCGACGAGGTCTGTGTGCAGGTTACTGATCTTTACTTGGC
AGAAAACAATAACGGAGCCACGGGAGGCCAGCTCAACAGTCAGACTTCAAGGAGCCTTCTGGAGTCAGCA
TACCAGCGGAAGGCAGAGCAGCTTATGTGATGAGAAGTCTTCAAGCTAATGTTCAATCAAAAGTCAAG
GTCAAGTTCAGCTGACTGTTGAGCTCCTGGACACAGAAGAGGAGAACTCAGATGACCCCGTGAAGCAGA
GCGTTGGTCAGACTACGTGGAGCGATATGAGTTCTGATACTACTTCTCCTGAACCTTCGAGAACATCTG
GCACAGAAACCAGTATTTCTCCAAGGAATTTGCGGCGTATCCGGAAGTGTCAACGTGGTCGAGAGCAAC
AGGAAAAAGAAGGAAAGAAGGAAACAGCAAGAAGACCATGGAAAATGTAGAGAGCCTGGATAAGCTGGA
GTGTAGGTTCAAGCTGAACCTCTATAAGATGGTATATGTGATCAAATCGGAGGACTACATGTACCGGAGA
ACTGCTCTACTCAGAGCTCATCAGTCCCATGAGCGTGTAAAGCAAGCGTCTGCATCAGCGGTTCCAGGCCT
GGGTGGATAAATGGACCAAGGAGCATGTGCCTCGGGAATGGCAGCAGAGACCAGCAATGGCTCATGGG
TGAGGGGCTCGAGGGCCTGGTACCCTGCACCACCCTGTGATACAGAGACTCTGCACTTTGTGAGCATT
AACAAATATCGTGTCAAATACGGCACAGTATTCAAAGCCCCTTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Chromatograms: https://cdn.origene.com/chromatograms/ja1741_b06.zip

Restriction Sites: Sgfl-Mlul

ACCN: NM_011378

Insert Size: 3825 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_011378.2](#), [NP_035508.2](#)

RefSeq Size: 5229 bp

RefSeq ORF: 3825 bp

Locus ID: 20466

UniProt ID: [Q60520](#)

Cytogenetics: 9 30.89 cM

Gene Summary:

Acts as a transcriptional repressor. Corepressor for REST. Interacts with MXI1 to repress MYC responsive genes and antagonize MYC oncogenic activities. Also interacts with MXD1-MAX heterodimers to repress transcription by tethering SIN3A to DNA. Acts cooperatively with OGT to repress transcription in parallel with histone deacetylation. Involved in the control of the circadian rhythms. Required for the transcriptional repression of circadian target genes, such as PER1, mediated by the large PER complex through histone deacetylation. Cooperates with FOXK1 to regulate cell cycle progression probably by repressing cell cycle inhibitor genes expression (PubMed:22476904). Required for cortical neuron differentiation and callosal axon elongation (PubMed:27399968).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longest transcript but encodes the shorter isoform (1). Variants 1, 3, and 4 all encode the same isoform (1).