

Product datasheet for **MC224129**

Sin3a (NM_001110351) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Sin3a (NM_001110351) Mouse Untagged Clone
Tag: Tag Free
Symbol: Sin3a
Synonyms: AW553200; mKIAA4126; mSin3A; Sin3
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >MC224129 representing NM_001110351
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAAGCGACGTTTGGATGACCAGGAATCACCAGTGTATGCAGCCAGCAGCGAAGGATTCCTGGGAGCA
CAGAGGCTTTTTCTCACCAGCACCGGGTCTTGCCCCGGCCCTCCTGTGTATGAAGCAGTGTCTGAGAC
CATGCAGTCAGCTACAGGCATTCAGTACTCAGTGGCACCAACTACCAGGTTTCAGCTGTGCCACAAAGT
TCTGGCAGTCATGGGCCCGCCATAGCAGCAGTTTCATAGCAGCCATCATCACCCAACAGCTGTCCAGCCTC
ATGGAGGCCAGGTGGTCCAGAGCCATGCCACCCAGCACCACAGTTGCACCAGTACAGGGACAGCAGCA
GTTTCAGAGGCTCAAGGTGGAAGACGCCCTGTCCTATCTTGACCAGGTGAAACTGCAGTTCGGTAGTCAG
CCTCAGGTCTACAATGATTTCTTGACATCATGAAGGAATTTAAATCTCAGAGCATTGATACTCCAGGAG
TGATTAGCCGAGTGTCCCAGCTATTTAAAGGCCACCCTGATCTGATCATGGGCTTTAACACCTTCTTGCC
TCCTGGCTACAAAATTGAGGTGCAGACTAATGACATGGTGAACGTGACAACACCTGGCCAAGTTCATCAG
ATTCCCACCATGGCATCCAGCCCCAGCCTCAGCCACCACCTCAGCATCCTTCCCAGCCTTCATCCCAGT
CAGCTCCCACCTCCTGCTCAGCCAGTCTCAGCCACAGCTGCCAAAGTCAGCAAGCCTTCCCAACTACA
AGCACATACTCCAGCCAGTCAGCAGACTCCCCACTCCCACCATATGCATCCCCAGTTCACCAGTC
CAGCCTCACACACCAGTGACAATCTCCTTGGGGACAGCTCCATCTTTGCAAAAACAATCAGCCTGTGGAGT
TTAATCATGCCATCAACTATGTTAATAAGATCAAGAACAGATTCCAGGGCCAACCAGACATCTACAAAGC
ATTCTTGGAGATTTTGCACACATACCAGAAAGAACAGCGGAATGCCAAGGAAGCTGGAGGAAACTACACT
CCAGCTTTGACTGAGCAAGAGGTGTATGCCAGGTGGCTCGACTCTTCAAAAACCAGGAAGATTTGTTGT
CTGAATTTGGACAGTTCCTGCCAGATGCCAACAGCTCAGTGCTTTTAAGCAAAAACAATGCTGAGAAGGT
TGATTCTGTGAGAAATGACCATGGAGGCACTGTGAAGAAGCCCCAACTGAATAACAAGCCACAGAGGCC
AGTCAGAAATGGTCCAGATCCGAGGCACTCTGGAACAGGAGCCACACCTCCAGTGAAGAAAAAACC
AACTGATGAGTCTAAAAGAGTCTTCAATGGCAGATGCCAGCAAGCATGGTGTGGAACCGGAATCATTATT
TTTTGATAAGGTTGAAAAGGCTCTTCGGAGTGCAGAGGCCTATGAAAACCTCCTTCGTTGCCTTGTATC
TTAATCAGGAGGTGATCTCCTGGGCCGAGCTGTACAGTAGTCTCTCCTTTTCTGGGAAATTCCTG



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AATTGTTAATTGGTTAAAACTTTTTGGGCTATAAGGAGTCTGTACATCTGGAAAGCTTCCAAAGGA
 ACGAGCTACAGAAGGCATTGCCATGGAGATAGACTATGCCTCTTGTAAACGACTGGGCTCTAGCTACCGA
 GCCCTACCGAAAAGTTACCAGCAGCCCAAGTGCACGGGACGGACTCCTCTGTGTAAGAGGTTTTAAATG
 ATACCTGGGTTTCCTTCCCATCTTGGTCTGAAGACTCCACTTTTGTAGTTCCAAGAAGACTCAGTATGA
 AGAACATATTTACCGTTTGAAGATGAACGATTTGAGCTTGATGTGGTCTTGAGACCAATCTTGCAACA
 ATCCGGGTTTTAGAAGCAATACAGAAAAAATTTCTCGCTTGTCTGCTGAGGAACAAGCCAAATTCGCT
 TGGATAACACCCTTGGAGGCACGTCCGAAGTCATCCATCGAAAAGCACTCCAGAGGATATATGCTGACAA
 AGCAGCTGATATCATCGATGGCCTGAGGAAGAACCCTCCATTGCTGTTCCGATTGCTTAAAAGGTTG
 AAGATGAAAGAAGAAGAGTGGCGAGAAGCTCAGAGAGGCTTCAACAAGGTCTGGCGAGAGCAAAATGAGA
 AGTACTACTTGAAGTCTCTGGATCACCAAGGCATCAACTTCAAGCAGAACGACACTAAGGTCTTGAGGTC
 TAAGAGCTTACTCAATGAGATCGAGAGCATCTATGACGAGAGGCAAGAGCAGGCTACAGAAGAGAACGCT
 GGTGTACCTGTTGGCCCGCACCTCTCTTGCCTATGAAGACAAACAGATACTAGAAGATGCTGCTGCTC
 TGATTATCCACCATGTGAAGAGGCAACAGGCATTAGAAAGAGGACAAATACAAATCAAGCAATCAT
 GCACCATTTTCCTGACCTGCTGTTTGTCTCAGAGAGGCGATCTCTCAGATGTGGAAGAAGAGGAGGAG
 GAAGAAATGGATGTGGATGAAGCAACAGGAGCACCTAAGAAGCACAATGGTGTGGGGGAGCCCCCTA
 AGTCCAAGTTGCTATTTAGTAACACAGCAGCTCAAAAAGTTAAGAGGGATGGATGAAGTATAAACCTTTT
 CTATGTCAATAACAATTGGTATATCTTTATGCGACTGCATCAAATTTCTCTGCTTGAGGCTGCTACGGATT
 TGTTCCTCAAGCTGAACGGCAAAATGAAGAAGAAAACCGAGAGAGAGAATGGGAACGGGAGGTGCTAGGCA
 TAAAGCGAGACAAGAGTGATAGTCTGCCATACAACACTACGTCTCAAGGAACCTATGGATGTTGATGTAGA
 AGATTATACCCAGCTTTCCTGGACATGGTGGGAGCCTGCTTGTGGCAACATAGACTCATCACAGTAT
 GAAGATTCAGTGAAGAGATGTTACCATTATGCCTACATTGCCTTTACTATGGACAAATTAATCCAGA
 GCATCGTCAGACAGCTACAGCACATCGTCAGCGACGAGGCTGTGTGCAGGTTACTGATCTTTACTTGGC
 AGAAAACAATAACGGAGCCACGGGAGGCCAGCTCAACAGTCAGACTTCAAGGAGCCTTCTGGAGTCAGCA
 TACCAGCGGAAGGCAGAGCAGCTTATGTCAGATGAGAAGTCTTCAAGCTAATGTTCAATCAAAGTCAAG
 GTCAAGTTCAGCTGACTGTTGAGCTCCTGGACACAGAAGAGGAGAACTCAGATGACCCCGTGAAGCAGA
 GCGTTGGTCAAGTACGTGGAGCGATATATGAGTTCTGATACTACTTCTCCTGAACCTTCGAGAACATCTG
 GCACAGAAACCAGTATTTCTCCAAGGAATTTGCGGCGTATCCGGAAGTGTCAACGTGGTCGAGAGCAAC
 AGGAAAAAGAAGGAAAGAAGGAAACAGCAAGAAGACCATGGAAAATGTAGAGAGCCTGGATAAGCTGGA
 GTGTAGGTTCAAGCTGAACTCCTATAAGATGGTATATGTGATCAAATCGGAGGACTACATGTACCGGAGA
 ACTGCTCTACTCAGAGCTCATCAGTCCCATGAGCGTGTAAAGCAAGCGTCTGCATCAGCGGTTCCAGGCC
 GGGTGGATAAATGGACCAAGGAGCATGTGCTCGGAAAATGGCAGCAGAGACCAGCAATGGCTCATGGG
 TGAGGGGCTCGAGGGCCTGGTACCCTGCACCACCCTGTGATACAGAGACTCTGCACTTTGTGAGCATT
 AACAAATATCGTGTCAAATACGGCACAGTATTTCAAAGCCCTTAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** Sgfl-MluI
- ACCN:** NM_001110351
- Insert Size:** 3825 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).
- 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_001110351.1](#), [NP_001103821.1](#)

RefSeq Size: 4998 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 FOXP1 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 (3) differs in the 5' UTR compared to variant 1. Variants 1, 3, and 4 all encode the same isoform (1).