

Product datasheet for **MG223187**

Sin3a (NM_011378) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Sin3a (NM_011378) Mouse Tagged ORF Clone
Tag: TurboGFP
Symbol: Sin3a
Synonyms: AW553200; mKIAA4126; mSin3A; Sin3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >MG223187 representing NM_011378
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGAAGCGACGTTTGGATGACCAGGAATCACCAGTGTATGCAGCCAGCAGCGAAGGATTCCTGGGAGCA
 CAGAGGCTTTTTCTCACCAGCACCGGTCTTGCCTCCGCCCCCTCTGTGTATGAAGCAGTGTCTGAGAC
 CATGCAGTCAGCTACAGGCATTCAGTACTCAGTGGCACCCAACTACCAGGTTTCAGCTGTGCCACAAAGT
 TCTGGCAGTCATGGGCCGCCATAGCAGCAGTTCATAGCAGCCATCATCACCACAGCTGTCCAGCCTC
 ATGGAGGCCAGGTGGTCCAGAGCCATGCCACCCAGCACCAGTTGCACCAGTACAGGGACAGCAGCA
 GTTTCAGAGGCTCAAGGTGGAAGACGCCCTGTCTATCTTGACCAGGTGAACTGCAGTTTCGGTAGTCAG
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 TGATTAGCCGAGTGTCCCAGCTATTTAAAGGCCACCCTGATCTGATCATGGGCTTTAACACCTTCTTGCC
 TCCTGGCTACAAAATTGAGGTGCAGACTAATGACATGGTGAACGTGACAACACCTGGCCAAGTTCATCAG
 ATTCACCCATGGCATCCAGCCCCAGCCTCAGCCACCACCTCAGCATCCTTCCCAGCCTTCATCCCAGT
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 AGCACACTCCAGCCAGTCAGCAGACTCCCCACTCCCACCATATGCATCCCCAGTTCCTCCACCCAGTC
 CAGCCTCACACACCAGTGACAATCTCCTTGGGGACAGCTCCATCTTTGCAAAAACAATCAGCCTGTGGAG
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TTTAATCAGGAGGTGATCTCTCGGGCCGAGCTTGTACAGCTAGTCTCTCCTTTTCTGGGAAATCCCTG
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AACAAATATCGTGTCAAATACGGCACAGTATTCAAAGCCCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG223187 representing NM_011378
 Red=Cloning site Green=Tags(s)

MKRRLDDQESPVYAAQRRIPGSTEAFSHQHRVLAAPPVYEAVSETMQSATGIQYSVAPNYQVSAVPQS
 SGSHGPAIAAVHSSHHHTAVQPHGGQVVQSHAHPAPPVAPVQGGQQFQRLKVEDALS YLDQVKLQFGSQ
 PQVYNDFLDIMKEFKSQSIDTPGVISRVSQLFKGHPDLIMGFNTFLPPGYKIEVQTNDMVNVTTTGGVHQ
 IPTHGIQPQPQPPQHPSPSSQSAPTPAQPAQPPTAAKVKSPSQLQAHTPASQQTPPLPPYASPRSPV
 QPHTPVTISLGTAPSLQNNQPVEFNHAINVYVNIKNRFQGPDIYKAFLEILHTYQKEQRNAKEAGGNYT
 PALTEQEYVAQVARLFKNQEDLLSEFGQFLPDANSSVLLSKTTAEKVDSVRNDHGGTVKKPQLNNKPQRP
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 FNQEVIISRAELVQLVSPFLGKFPFLFNWFKNFLGYKESVHLESFPKERATEGIAMEIDYASCKRLGSSYR
 ALPKSYQQPKCTGRTPCKEVLNNTWVSPSWSEDSTFVSSKKTQYEEHIYRCEDERFELDVVLETNLAT
 IRVLEAIQKKLSRLSAEEQAKFRDNTLGGTSEVIHRKALQRIYADKAADIIDGLRKNPSIAVPIVLKRL
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 GVPVGPLSLAYEDKQILEDAAALIIHHVKRQTGIQKEDKYKIKQIMHHFIPDLLFAQRGDLSDVEEEEE
 EEMDVDEATGAPKKHNGVGGSPKSKLLFNNTAAQKLRGMDEVNLFYVNNNWIYFMRHLQILCLRLRI
 CSQAERQIEEENREREWEREVLGIKRDKSDSPAIQLRLKEPMDVDVEDYYPFLDMVRSLLDGNIDSSQY
 EDLSLREMTIHAYIAFTMDKLIQSIVRQLQHIVSDEVCVQVTDLYLAENNNGATGGQLNSQTSRSLLESA
 YQRKAEQLMSDENCFLMFIQSQQVQLTVELLDTEEENSDDPVEAERWSDYVERYMSSDTTSPELREHL
 AQKPVFLPRNLRRIRKCRGREGQEQEKEGKEGNSKKT MENVESLDKLECRFKLNSYKMYVVIKSEDYMYRR
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 NKYRVKYGTVFKAP

TRTRPLE - GFP Tag - V

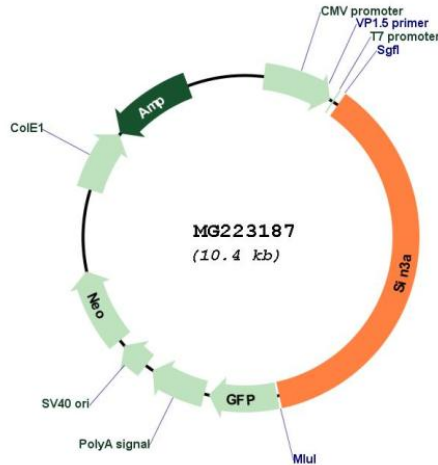
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_011378

ORF Size: 3822 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](#)

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_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]