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Product datasheet for MG224052

Sin3a (NM_001110350) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sin3a (NM_001110350) 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:

>MG224052 representing NM_001110350
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAAGCGACGTTTGGATGACCAGGAATCACCAGTGTATGCAGCCCAGCAGCGAAGGATTCCTGGGAGCA
CAGAGGCTTTTTCTCACCAGCACCGGGTCCTTGCCCCGGCCCCTCCTGTGTATGAAGCAGTGTCTGAGAC
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GTGAGCATTAACAAATATCGTGTCAAATACGGCACAGTATTCAAAGCCCCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG224052 representing NM_001110350
Red=Cloning site Green=Tags(s)

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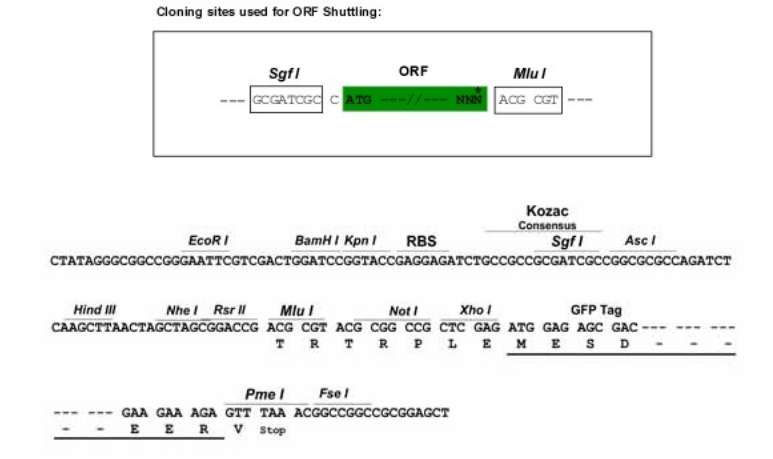
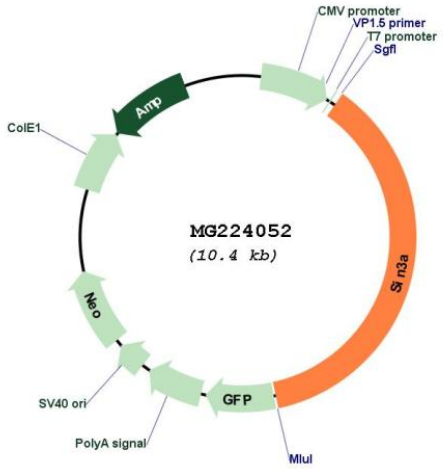
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001110350
ORF Size:	3831 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:	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_001110350.1, NP_001103820.1
RefSeq Size:	5130 bp
RefSeq ORF:	3834 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]