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Product datasheet for MG223202

Satb1 (NM_001163632) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Satb1 (NM_001163632) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Satb1
Synonyms:	2610306G12Rik; AW413156
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

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ORF Nucleotide Sequence:

>MG223202 representing NM_001163632
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGATCATTTGAACGAGGCAACTCAGGGGAAAGAACATTCAGAAATGTCTAACAATGTGAGTGATCCGA
AGGGTCCACCCGCCAAGATTGCCCGCCTGGAGCAGAACGGGAGCCCTCTAGGAAGAGGAAGGCTTGGGAG
CACAGGTGGAAAGATGCAGGGAGTGCCTTTAAAACACTCGGGCCATCTCATGAAAACCAACCTTAGGAAA
GGAACCATGTTACCAGTTTTCTGCGTGGTGGAACATTATGAAAACGCCATTGAGTATGATTGCAAGGAGG
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CCACTGTCGTATGTGACAGATGCCCCTGATGCCACGGTGGCAGACATGCTTCAAGATGTGTATCATGTGG
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CACAGTAAGGAATGCTCTGAAGGACTTACTGAAAGATATGAACCAGAGTTCGTTGGCCAAGGAGTGCCCC
CTTTCACAGAGCATGATCTCCTCCATTGTGAACAGCACGTACTATGCAAATGTCTCAGCAGCAAAATGTC
AAGAATTTGGAAGGTGGTACAAACATTTCAAGAAGACAAAGGATATGATGGTTGAGATGGATAGTCTGTC
TGAACTATCCCAGCAAGGTGCCAACCACGTCAATTTTGGCCAGCAGCCTGTCCCAGGAAACACAGCTGAG
CAGCCTCCATCCCCTGCGCAGCTCTCTCACGGCAGTCAGCCCTCTGTCCGGACCCCTCTTCCGAACCTGC
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ACTATGAACATTAATGCCTCCATTTATGACGAGATTCAGCAGGAAATGAAGCGTGCTAAAGTGTCCCAAG
CACTGTTTGCAAAGGTTGCCGCCACAAAAAGCCAGGGATGGCTGTGTGAGCTGTTGCGCTGGAAAGAAGA
TCCTTCTCCAGAAAACAGGACCCTGTGGGAGAACCTGTCGATGATCCGAAGATTCCTCAGTCTGCCCCAG
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GCCACCGCCGCCACCGCCGCAGCCACAGCCACAGCCCCAGGCAGGCCCCAGACTCCCCCCACGGCAGCCC
ACCGTGGCCTCCTCCGCGGAGTCCGATGAGGAAAACCGGCAGAAGACCAGGCCACGAACCAAAATTTCCG
TGGAAGCCCTGGGGATCCTTCAGAGTTTCATCCAAGATGTGGGCCTGTACCCAGATGAAGAGGCTATCCA
GACTCTGTCTGCACAGCTGGACCTCCCGAAGTACACCATCATCAAGTTCTTTCAGAACCAGCGGTACTAC
CTTAAGCACCATGGCAAGCTGAAGGACAACTCCGGCTTGGAGGTGGATGTGGCCGAGTACAAAGATGAGG
AGTTGCTTAAGGATTTGGAAGAGAGCGTCCAGGATAAAAACGCCAACACCCTTTTCTCAGTGAAACTAGA
GGAAGAGCTGTCGGTGGAAGGGAGCACAGACGTTAATGCCGACTTGAAAGAC

AGCGGACCGACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

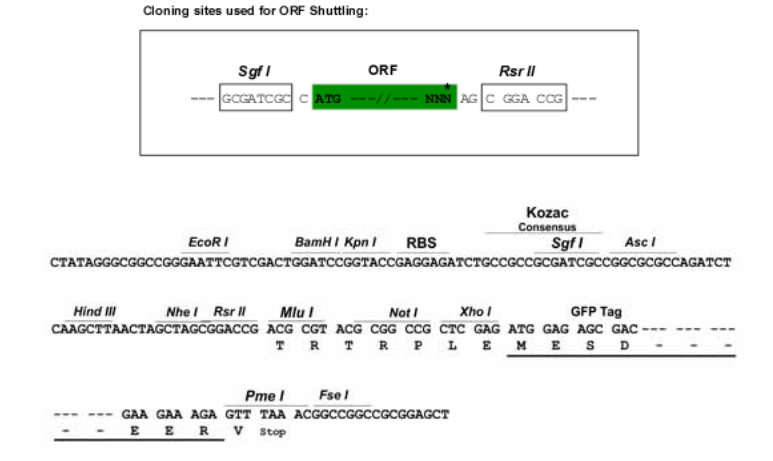
>MG223202 representing NM_001163632
Red=Cloning site Green=Tags(s)

MDHLNEATQGKEHSEMSNNVSDPKGPPAKIARLEQNGSPLGRGRLGSTGGKMQGVPLKHSGHLMKTNLRK
GTMLPVFCVVEHYENAIEYDCKEEHAEFVLVRKDMLFNQLIEMALLSLGYSHSSAAQAKGLIQVGKWNPV
PLSYVTDAPDATVADMLQDVYHVVTLKIQLHSCPKLEDLPPEQWSHTTVRNALKDLLKDMNQSSLAKECP
LSQSMISSIVNSTYYANVSAAKCQEFGRWYKHFKKTKDMMVEMDSLSELSQQGANHVNFGQQPVPGNTAE
QPPSPAQLSHGSQPSVRTPLPNLHPGLVSTPISPQLVNQQLVMAQLLNQQYAVNRLLAQQSLNQQYLNHP
PPVSRSMNKPLEQQVSTNTEVSSEIYQWVRDELKRAGISQAVFARVAFNRTQGLLSEILRKEEDPKTASQ
SLLVNLRAMQNFLQLPEAERDRIYQDERERSLNAASAMGPAPLLSTPPSRPPQVKTATLATERNGKPENN
TMNINASIYDEIQQEMKRAKVSQALFAKVAATKSQGWLCELLRWKEDPSPENRTLWENLSMIRRFLSLPQ
PERDAIYEQESNAVHHHGDRPPHIIHVPAEQIQQQQQQQQQQQQQQQPPPPPQPQPQPQAGPRLPPRQP
TVASSAESDEENRQKTRPRTKISVEALGILQSFIQDVGLYPDEEAIQTLSAQLDLPKYTIIKFFQNQRYY
LKHHGKLKDNSGLEVDVAEYKDEELLKDLEESVQDKNANTLFSVKLEEELSVEGSTDVNADLKD

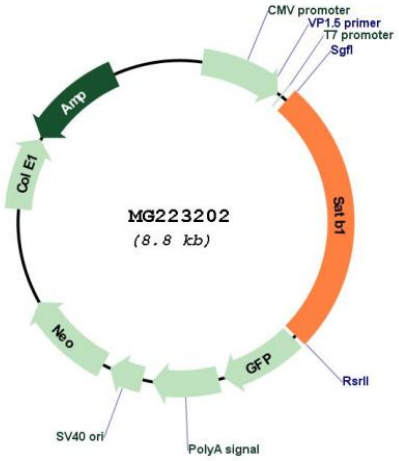
SGPTRTRRLE – GFP Tag – V

Restriction Sites: SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN:	NM_001163632
ORF Size:	2292 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_001163632.1, NP_001157104.1
RefSeq Size:	6178 bp
RefSeq ORF:	2295 bp
Locus ID:	20230

UniProt ID: Q60611

Cytogenetics: 17 C

Gene Summary: Required for the switching of fetal globin species, and beta- and gamma-globin genes regulation during erythroid differentiation. Plays a role in chromatin organization and nuclear architecture during apoptosis (By similarity). Crucial silencing factor contributing to the initiation of X inactivation mediated by Xist RNA that occurs during embryogenesis and in lymphoma. Binds to DNA at special AT-rich sequences, the consensus SATB1-binding sequence (CSBS), at nuclear matrix- or scaffold-associated regions. Thought to recognize the sugar-phosphate structure of double-stranded DNA. Transcriptional repressor controlling nuclear and viral gene expression in a phosphorylated and acetylated status-dependent manner, by binding to matrix attachment regions (MARs) of DNA and inducing a local chromatin-loop remodeling. Acts as a docking site for several chromatin remodeling enzymes and also by recruiting corepressors (HDACs) or coactivators (HATs) directly to promoters and enhancers. Modulates genes that are essential in the maturation of the immune T-cell CD8SP from thymocytes.[UniProtKB/Swiss-Prot Function]