

## Product datasheet for **MG215352**

### Setd1a (NM\_178029) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Setd1a (NM_178029) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Setd1a
Synonyms:	BC010250; KMT2F; mKIAA0339; mNSC1; Nscn1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG215352 representing NM_178029, <b>codon optimized</b> . <b>Due to the complexity of NM_178029, the ORF clone is codon optimized for mammalian Expression.</b> <b>The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.</b>

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

ATGGACCAGGAAGGTGGGGGAGACGGGCAGAAAGCCCCGAGCTTCCAGTGGCGGAACACAAAGCTCATAG  
TGGATCCTGCTTTGGACCTGCTTTGCGCAGGCCCTTCCAGAAGGTGTACCGCTATGACGGAGTCCACTT  
CAGTGTCACTGACTCAAAGTATACCCCCGTGGAAGACCTCCAGGACCCCCGCTGTGATGTCAGGTCCAAA  
GCCAGAGACTTTCCCTCCCGGTTCCCTAAGTTTAAAGCTGGATGAGTTCTATATTGGACAGATACCACTGA  
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TGGAGAGGTGGAAGAAGTGGAGATCCTTCTTATCCCCGACTCGAAAGCACCTAGGCCCTGGCCCGTGTG  
CTCTTACCAGCACTCGGGGCGCCAAGGAACTGTCAAAAACCTCCACCTCACCTGTGATGGCAACA  
TCATTCATGCCAGCTTGATATCAAAGCCAACAACGAATGAAGTACTATGAATTGATTGCAATGGCTC  
TTACACTCCTCAGACTGTGCCACTGGGGCAAGGCCTTGAGTGAGAAGTTCCAGGGTCTGGTGCAGCC  
GCTGAGACGACTGAAGCCCGCCGACGGTCTTCTCGGACACAGCTGCCTATCCAGCAGGCACTACTGTGG  
GGGGCACCCCTGGCAATGGCACTCCCTGCTCCCAAGATACAAATTTCTCCAGCAGCCGACAAGATACTCC  
ATCTTCTTTGGCCAGTTCACCCCTCAGTCTCCCAAGGAACCCCTACACATCTCGGGGTAGCACCCCT  
TACTCTCAGGACTCTGCCTACTCCAGCAGCACTTCAACCTCCTTCAAACCCCGCGGTGAGAGAACA  
GCTATCAAGATTCTTTTCTCGCCGCCATTTCTCTACATCTTTCAGCCCTGCAACCACCGCTACTGCCAC  
CTCAGCAACTGCTGCAGTACTGCAGCCTCCTCCTCATCTTCTCCTCCTCGTCATCCAGCAGCAGCAGC  
AGCTCTAGCTCTCAGCCTCCAGTTTAGAGGCTCCGACTCATCTATCCTGCCTATTATGAATCATGGA



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ACAGATATCAAAGGCATACTTCCTACCCTCCGCGCCGCGCCACCCGCGAGGATCCGTCCGGAGCTAGCTT  
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 CGTAGCCTCCGCTCCCACTCGAAGAAGAAGGCCACCACTCCACCCCAACCCCACTCTCTTCTCT  
 TTGAGCCGAGAAGTGAATTTGAGCAGATGACCATCTTGTATGATATTTGGAAGTCAAGCCTTACTTGA  
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 CTGCACGCCAACTGCTATGCGAAGGTGATCACCATTGAGTCTCAGAAAAAGATTGTCATCTACTCGAAG  
 CAGCCCATCGGCGTGGATGAGGAGATCACCTACGACTACAAGTCCCCTAGAAAGACAACAAGATTCCGT  
 GTCTGTGCGGCACTGAAAGTTGCCGTGGCTCCCTCAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG215352 representing NM\_178029  
 Red=Cloning site Green=Tags(s)

MDQEAGGGDQKAPSFQWRNYKLIIVDPALDPAALRRPSQKVYRYDGVHFSVSDSKYTPVEDLQDPRCHVRSK  
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 LFTSTRGAKETVKNLHLTSMGNIHAQLDIKQQRMKYELIVNGSYTPQTVPVTPGGKALSEKFGSGAA  
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 WWESKEEKAKPFQNAKQQAKEEDKEKMKLKEPGMLSLVDWAKSGGITGIEAFAGSGLRGALRLPSFKV  
 KRKEPSEI SEASEEKRRPSTPAEEDDDPEREKEAGEPGRPGTKPPKRDEERGKTQGKHKRSFTLDSEG  
 EEASQESSSEKDEDDDEDEEQQEAVDATKKEAEASDGEDESDSSSQCSLYADSDGENGSTSDSES  
 GSSSSSSSSSSSSSSSSSSSESSSEEEQSAVIPSASPPREVPEPLPAPDEKPEVDGLVDSVMPLSEKET  
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 LAVLADLALTPARRGLATLPTGDDSEATESTSDEAERPSPLL SHILLEHNYALAIKPPPTTPAPRPLEPAP  
 ALAALFSSPADEVLEAPEVVVAEAEKPKQLQQQHPEQEGEEEEEESESSSSSSSSSDEEGAIRR  
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 DTHWVQHTITNLSTPKRKRPPQDGPREQHQTGSARSEGYPISKKEKDKYLDVCPVSARQLEGGDTQGTNR  
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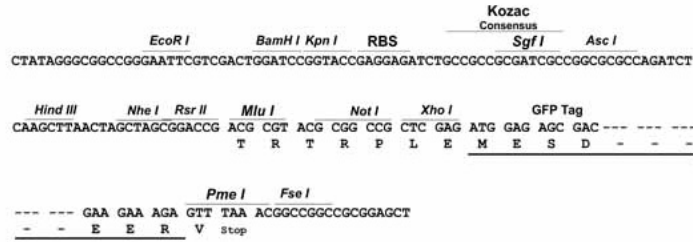
TRTRPLE - GFP Tag - V

**Restriction Sites:**

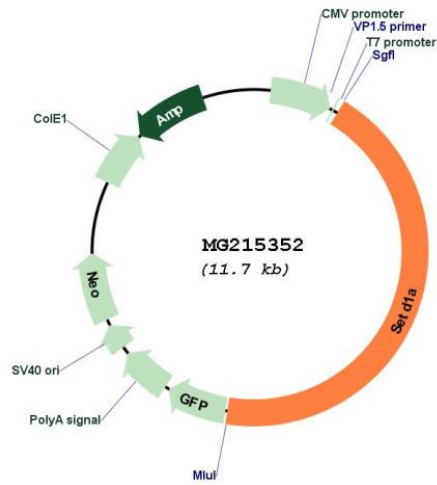
Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:

NM\_178029

<b>ORF Size:</b>	5148 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_178029.3</a> , <a href="#">NP_821172.2</a>
<b>RefSeq Size:</b>	5934 bp
<b>RefSeq ORF:</b>	5151 bp
<b>Locus ID:</b>	233904
<b>UniProt ID:</b>	<a href="#">E9PYH6</a>
<b>Cytogenetics:</b>	7 F3
<b>Gene Summary:</b>	Histone methyltransferase that specifically methylates 'Lys-4' of histone H3, when part of the SET1 histone methyltransferase (HMT) complex, but not if the neighboring 'Lys-9' residue is already methylated. H3 'Lys-4' methylation represents a specific tag for epigenetic transcriptional activation. The non-overlapping localization with SETD1B suggests that SETD1A and SETD1B make non-redundant contributions to the epigenetic control of chromatin structure and gene expression.[UniProtKB/Swiss-Prot Function]