

## Product datasheet for **MG218623**

### Gen1 (NM\_177331) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Gen1 (NM_177331) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Gen1
Synonyms:	5830483C08Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>MG218623 representing NM\_177331  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGAGTGAATGACTTATGGCAAATTCTAGAGCCTGTAAGCAACATATCCACTTGCAAGATCTTAGTG  
 GGAAAACCATGCGGTTGATTTGAGTCTCTGGGTATGCGAGGCACAGACAGTGAAGAAAATGATAGGAAC  
 TGCAAGAAGCCCCACCTCAGGAACCTATTTTTTCGATTTCATATTTAACTCAAATGAATGTAATACTG  
 GTGTTTGAATGGAAGGGGAGCCACCAATGCTGAAAGCTGATGTCATAAGCAAGAGGACTCAGACTCGTT  
 ACGGGCCTTCTGGAAAATCAAGTCTCAGAAAACAGGGAGATCACATTTTAAAGTCACTTACGAGAGTG  
 CCTTGAATGCTCGAGTGCCTGGGAATGCCCTGGGTCCAGGCCGCGGGGAAGCTGAGGCCATGTGTGCT  
 TACCTTAATGCCAGTGGCCATGTGGATGGCTGCCTACCAACGACGGCGATGCTTTCCTTATGGAGCCC  
 AGACTGTTACAGAAAATTCACGATGAACACAAAGGATCCCCATGTTGACTGTTACACGATATCATCTAT  
 CAAGAGTAAGCTAGGCTGGATCGAGACGCTCTGGTTGGACTGGCCGTACTTCTGGGTTGTGATTACCTT  
 CCAAAGGAGTGCCTGGAGTTGGAAAGGAACAAGCATTAAAACTTTTGCAGATTTTCAAAGGTCAAAGTT  
 TGCTTCAGAGGTTTAAACCAGTGGATTGAAGACCCTTGCTACTCTGTTCCACAATCAGCACAAAAAAGT  
 GGTTCACTGCTCTGTGTGTTCCACCCAGGTTCCGCAAAGGATCATGAACGTAATGGATGCATATATATGT  
 AAAAGTGATAAATACTGTGAACCACATGATTATGATTACCTCTGCCCTTGTGAATGGCATCAGACAGACC  
 ATAATAGGCATCTAAGTGAATAGAAAACAATATTAAGAAAGAAAGCTTGCAGTTGCGAAGGATTTCCATT  
 CCATGAGGTCATCCAAGATTCCTTTTGAATAAGAATAAAATGTTGAAACCGATCACATACCAAAGACCT  
 GATTTATTATTGTTTTCAGAGATTTACTGTTCAAAAAATGGAGTGGCCAGTCACTATGCAATGTGAAAAAT  
 TGTTGGTGCCTTTGACCCGCTATGACATGATAGAAAAGAAAACATGGTAGAAAAGACCTCCAATCAACTACA  
 GCCAATTAGAATTGTTAAACCCCGAGTCAGAAATGGAGTCCATTGTCTTGAATAGAATGGGAAAAGCCT  
 GAACATTATGTGGTGAAGATGGAGACCCTGGAAGAACTGAGCCTCCTTACAATGGAAGAAGCGTCCCTGT  
 TTGAAGCAGCCTATCCTGATGCTGTGGTGTCTACCAGAAAACAGCTGTCAGAGACCAAAGGAAGGAAACA  
 GAAAAGTATGAAAAATAAGCCTAAAGGAAGCCATTTACCGGAAGCAGATGATGTGATCAATTCTCAGTCA  
 CTTATGACTTTAAAACCTACATCTAAAGCCTTCCCAAGCAAAAATCCAAAATTAATTTGGAAAATCTC  
 CAGATCCTATTTAGCACAGGAATCTACTTCCCCTCATTGAATAGTTTTGTTCCCTGAAAATGCTCC  
 CTGTTTGAATTTACAAGAACAGTTAGTGCCATCTCCAGAACTTTGGCTATAAAGCAAAGTAAAGATGTC  
 AGTCATTTTCTAGTTTTCAGAATGTAGTCAGCCAGCTCTTCTCCATGACATCTCTGTGATTACTGATC  
 TGCAGTTGAGTACCATTGATTGGGCGGGTACTTCTTTTAGTAATTCTCCAGCAGTTCAAAGAAACACTTT  
 CTCTCAAGACTTAGCATCAGAATCTGAGTCATCGGCCATCCTTCTGACTTTGAACAGCTGTCTATATGAA  
 TCAGAACAAGGGACCTCAGACAGTGAAGGGTCCGGTAGAGACCTTCCAGCAGAGCAACCCTGAAGAGCAGC  
 TCCTTTCTGGCATCAGTGCTTTACATCTTCATGATTTGCCTCTAAAAGAAAAGAAACGATCAAAATCTTC  
 ATGCCCTCAGTATAATGTAGGAGCAGATGCTGGCTGGAAGTTTGGCCCTAAAATTTGAAAGGCTCTTGT  
 ATTGCTTACAGTAGCTCTGATGGCTCATCCAATTTTTCAAAGGATCTTACAGGGGTATATCTTCACAAAG  
 AGTCCAGAAACTCAAAGTTCTAGACAGCCGACTCCAAGAAAACGCGGGGCGAATACTTCTTACCTTA  
 TTCTTTTCAAGTACAAAAGCAGTAAAGACTTCCAGTCTTCAAGTTGGGCTGCCAACTGCTGCTATACCTCAT  
 AATCCAAGAGTTGCTGTGAAAACACTAAGAACCTTGTGATGAAGAATAGTGTTCCTCGAGAGAGATT  
 CCTCAGATGAAGACAATGCTCCAGGTCCTGGAATCAAAGTATACTGCTCCAGAATGAAACACAGTTC  
 TCAGAAGCACAGCCTAGTCCATGTGAGACAGTACTCACAACAAACTCAGAAAATCCTAAAGTGAATCT  
 AAAGAAACCAAAGTGTGTAATGAGTCTTTTAAAACAGCTGAAGATGAAGAAAACGGGTTCTCAGATCTAG  
 GGAGAAGTCTCAGAGTTTTGACCATGTGATGACAAAGATGAGAAGTCTACTGCCTCCTGGAAAATCC  
 TCTACCTTACGCCAGAGGTTAAAACACTCAGGTTCCAGAACACTCAAAGTGGATTTTATAACT

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – **GTTTAA**

Protein Sequence: >MG218623 representing NM\_177331  
 Red=Cloning site Green=Tags(s)

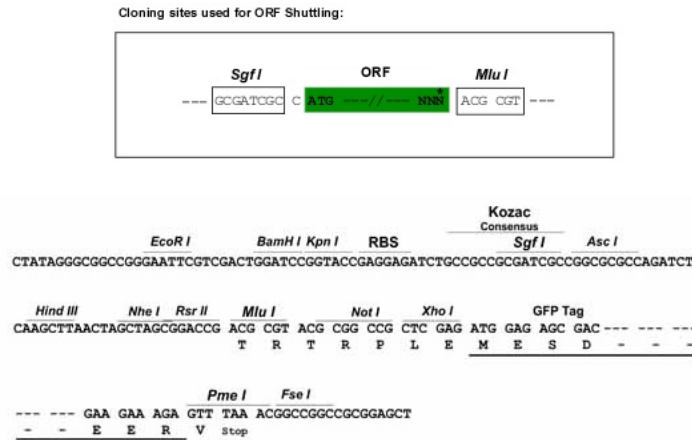
MGVNDLWQILEPVKQHIHLQDLSGKTIIVDL SLWVCEAQTVKKMIGTVKKPHLRNLFRRISYLTQMNVKL  
 VFVMEGEPMLKADVISKRTQTRYGSPGKSRSQKTGRSHFKSVLRECLEMLECLGMPWVQAAGEAEAMCA  
 YLNASGHVDGCLTNDGDAFLYGAQTVYRNFTMNTKDPHVDCYTISSIKSLGLDRDALVGLAVLLGCDYL  
 PKGVPGVKGKEQALKLLQIFKGQSLLRFRNQWIEDPCYSVPQSAPKKVHVHCSVCSHPGSPKDHENGCILC  
 KSDKYCEPHDYDYLCPCEWHQTDHNRHLSEIENNIKAKCSCEGFPFHEVIQEFLLNKNKMLKPITYQRP  
 DLLLFRFTVQKMEWPSHYACEKLLVLLTRYDMIERKHGRKTSNQLQPIRIVKPRVRNGVHCLEIEWEKP  
 EHYVVEDGDPGKLSLLTMEEASLFEAAYPDAVAVYQKQLSETKGRKQKSMKNPKGSHLPEADDVINSQS  
 LMTLKPTSKAFFPKQPKINLENSPDPILAQESTSPSLNSFVSPENAPCLNLQEQLVSPRTLAIKQSKDV  
 SHFLVSECSQPSSSSHDISVITDLQLSTIDWAGTSFSNSPAVQRNTFSQDLASESSAILPDFEQLSYE  
 SEQGTSDESGRDLQSNPEEQLLSGISALHLHDLPLKERIRIKSSCPQYNVGADAGLESPLKLGKSC  
 IAYSSSDGSSNFSKDLTGYYLHKE SRNSKVLDSRLQENCGANTSLPYSFSDKAVKTS S LQVGLPTAAIPH  
 NPRVAVKTTKNL VMKNSVCLERDSSDEDNAPGSWWSKYTAPEMKHSSQKHSLVHVRDSTHNKLRNPKVES  
 KETKLCNESFKTAEDEENGFS DLGRSPQSF RPCHDKDENSTASWENPLPLRQRLKLRFQNTQSGFYNT

TRTRPLE - GFP Tag - V

Restriction Sites:

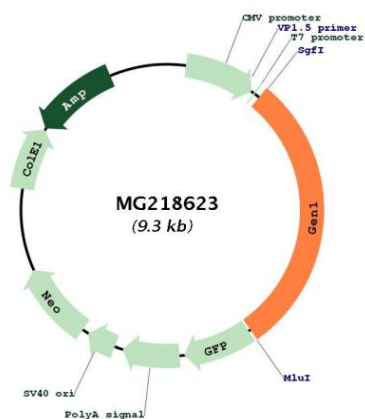
Sgfl-MluI

Cloning Scheme:



<b>ACCN:</b>	NM_177331
<b>ORF Size:</b>	2724 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_177331.5</a>
<b>RefSeq Size:</b>	3302 bp
<b>RefSeq ORF:</b>	2727 bp
<b>Locus ID:</b>	209334
<b>UniProt ID:</b>	<a href="#">Q8BMI4</a>
<b>Cytogenetics:</b>	12 A1.1
<b>Gene Summary:</b>	Endonuclease which resolves Holliday junctions (HJs) by the introduction of symmetrically related cuts across the junction point, to produce nicked duplex products in which the nicks can be readily ligated. Four-way DNA intermediates, also known as Holliday junctions, are formed during homologous recombination and DNA repair, and their resolution is necessary for proper chromosome segregation. Cleaves HJs by a nick and counter-nick mechanism involving dual coordinated incisions that lead to the formation of ligatable nicked duplex products. Cleavage of the first strand is rate limiting, while second strand cleavage is rapid. Largely monomeric, dimerizes on the HJ and the first nick occurs upon dimerization at the junction. Efficiently cleaves both single and double HJs contained within large recombination intermediates. Exhibits a weak sequence preference for incision between two G residues that reside in a T-rich region of DNA. Has also endonuclease activity on 5'-flap and replication fork (RF) DNA substrates.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG218623