

## Product datasheet for **MG211575**

### MIIt10 (NM\_010804) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MIIt10 (NM_010804) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MIIt10
Synonyms:	Af10; B130021D15Rik; D630001B22Rik; mKIAA4140
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG211575 representing NM_010804 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTCTCTAGCGACCGGCCGTGCTCACTGGAGGACGAGGTCTCCCATAGTATGAAGGAAATGATTGGAG  
GCTGTTGCGTTTGGCTCAGACGAGAGAGGCTGGGCCGAGAACCCTGGTTTATTGCGACGGGCACGGCTG  
CAGCGTCGCGGTGCATCAAGCTTGCTATGGCATTGTTCAAGTACCTACTGGACCGTGGTTTTGTAGGAAA  
TGTGAATCTCAGGAGAGAGCAGCCAGAGTGAGATGTGAGCTGTGTCCCATAAAGATGGAGCTTTAAAAA  
GAACAGATAATGGGGTTGGGCTCATGTGGTTTGTGCCCTCTATATTCCAGAGGTACAATTTGCCAATGT  
TTCTACAATGGAGCCAATCGTTTTACAGTCTGTCCCATGATCGTTATAATAAGACTTGCTATATATGT  
GATGAACAAGGACGAGAAAGCAAAGCAGCCACTGGTGCTTGCATGACATGTAATAAACATGGATGTCGAC  
AGGCTTTCCATGTAACATGTGCTCAGTTTGTGGGCTGCTTTGTGAAGAAGAAGGGAATGGCGCAGACAA  
TGTTCAACTACTGTGGCTACTGTAATACCCTTTAGTAAGCTGAAAAAGAGCAAACGGGGATCTAATAGG  
TCATATGAGCAAAGTTTAAAGTACTCTTCTCTCACTCTCAGGATAAGCATCATGAGAAAGAGAAAAAAA  
AATATAAAGAAAAGGACAAACACAAACAAAAACACAAGAAGCAACCAGAACCGTCACTGCCTTGGTTCC  
TTCTTTGACTGTTACTACAGAAAAAATTTACAAGCACTAGCAACAACCTCATATCTGGATCATTGAAG  
CGTTTGAAGATACTGCAGCAAGATTTACAATGCAAATTTCCAGGAAGTCTTGCCCATACCTCTAGTG  
GAAAAGATGTTTCAGAGGCTAGAGGGTCAGAGGGCAAAGGGAAGAAATCTTCAGCTCACAGCTCAGGTCA  
AAGGGGAAGGAAGCCTGGTGCAGGAAGAAATCCAGGAACAGCTGTGTCAGCATCTAGCCCTTTCCACAA  
GGCAGTTTTTCAGGAACCTCAGGCAAGTAAAGTCACTTCTGGAAGTTCAGTGCAGTCTCCCCAGGACT  
TCTTAAGCTTTACAGACTCAGATCTGCGAAGTGACAGTTAACAACACCCAGCAGCCATCATCAACCAA  
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CCTGTGACCTCGACTGTTATTTACAGCCTAAAAGCTTTGACAATTCACCTGGAGAGTTGGGTAGTTGCA  
GCCTCCCTACAGCAGGATATAAGCGGGCTCAGACTTCTGGTATAGAAGAAGAAGCTGTAAGGAAAAAGAA  
ACGAAAAGGAAATAAGCAAAGCAAACATGGCCCCGGCCGACCCAAAGGAAACAAAAATCAAGAAAATGTT



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TCTCACCTCTCAGTTTCTTGCTTACCAACATCGTCCGTAGCATCAGCTGCAGGAAGTGAACAAGCT  
 CTAGTCTTCAGAAATCTCCTACGCTGCTCAGGAATGGAAGTTTGCAGAGTCTTAGTGTGGCTCGTCTCC  
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 CTGAATGCAATACACAATGGTATTTATAACAGCAATGATGTAGCCGTATCCTTTCCAAACGTGGTGTCTG  
 GCTCAGGATCTAGTACTCCTGTCTTAGCTCTCATATACCTCAGCAGTCATCTGGTCATTTGCAACAGGT  
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 CAGTTTCTCATAGCTCAGTCTGAAAGCAGCCAAACAGATCAAGATCTTGGAGACAATGCCCGTAGCCTGGG  
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 CTCTCACCCACACCAGTGTACCACCTAATGCAGCGCATCCAATGCCGGCCGCCGACTGACCAACAGTGC  
 CTCGGGACTAGGGCTGCTGTCGGACCAGCAGAGACAGATGTTTATCCAGCAGCAGAGTTCCAGCAGCTG  
 TAAACTCCCAGCAGCTCACACCCGAACAGCATCAGGCCTTCTATACCAGCTGATGCAGCAGCAGCACC  
 ACCCGCTGAGCTCCAGCAGCTGCAGCTCCCGGACCCACGCAGATCCCCATCAACAATCTCCTTGACGG  
 TGCTCAGGCGCCTCCACTCCACACAGCTACCACCAACCCCTTCTCACCATCCACGGGACAGCAGCAGC  
 CAGAAGGTCACAAGACTTAGTGATAAAACTGGCCTGTAGCTCAAGAGAAAAGT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>MG211575 representing NM\_010804  
 Red=Cloning site Green=Tags(s)

MVSSDRPVSLDEEVSHSMKEMIGCCVCSDERGWAENPLVYCDGHGCSVAHVQACYGIVQVPTGPWFCKR  
 CESQERAAVRCELCPHKDGALKRRTDNGGWAHVVCALYIPEVQFANVSTMEPIVLQSVPHDRYNKTCYIC  
 DEQGRESKAATGACMTCNKHGCRQAFHVTCAQFAGLLCEEEGNGADNVQYCYCKYHFSKLLKSKRGSNR  
 SYEQSLSDSSSHSQDKHHEKEKKYKEKDKHKQKHKQPEPSPALVPSLTVTTEKTYTSTSNNSISGSLK  
 RLEDTAARFTNANFQEVSAHTSSGKDVSEARGSEGKGGKSSAHSSGQRGRKPGAGRNPGTAVSASSPFPQ  
 GFSFGTSGSVKSSSGSSVQSPQDFLSFTDSLRSDSYHTTQPPSSTKDVHKGESGSQEAAVNSFSSLVGH  
 PVTSTVISQPKSFDNSPGEGLSSSLPTAGYKRAQTSGIEEEAVKEKKRKGKQSKHGPGRPKGNKNQENV  
 SHLSVSSASPTSSVASAAGSVTSSSLQKSPTLLRNGSLQSLSVGSSPVGSEISMQYRHDGACPTTTFSEL  
 LNAIHNGIYNSNDVAVSFPNVVSGSGSSTPVSSSHIPQSSGHLQVVGALSPSAASSVTPAAATTQANTV  
 SGSSLSQAPAHMYGSRNLNQNPSMAVLI AQSESSQTDQDLGDNARSLGGRGSSPRGSLSPRSPVSNLQRLY  
 DQPSNSSLETVPVPAASIEQLLERQWSEGQQLLEQGTGPDILGMLKSLHQLQVENRRLEEIQIKNL TAKK  
 ERLQLLNAQLSVPFPAITTNPSPSHQMHTYTAQTAPPDLSNSSKSPHIGNSFLPDNSLPVLNQDLTSSG  
 QSTSSSALSTPPPAGQSPAQQSSGVQVNGVTVGALASGMQTVTSTIPAVSAVGGIIGALPGNQLA  
 INGI V GALNGVIQTPVTISQNPAPLTHTSVPPNAAHPMPAAAL TNSASGLGLLSDQQRQMF IQQQQFQQL  
 LNSQQLTPEQHQAFLYQLMQQHHPPPELQQLQLPGPTQIPINLLLAGAQAPPLHTATTNPFLTIIHG DSTS  
 QKVTRLSDKTGPVAQEKS

TRTRPLE – GFP Tag – V

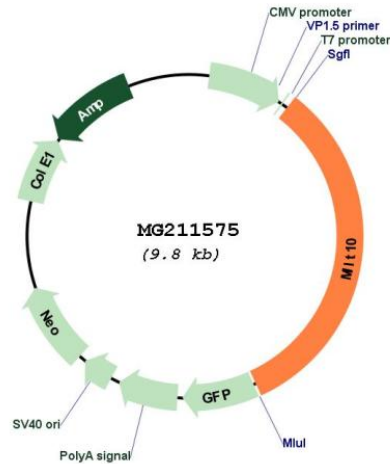
**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_010804

**ORF Size:** 3204 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.

<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_010804.2</a>
<b>RefSeq Size:</b>	4886 bp
<b>RefSeq ORF:</b>	3207 bp
<b>Locus ID:</b>	17354
<b>UniProt ID:</b>	<a href="#">O54826</a>
<b>Cytogenetics:</b>	2 A3
<b>Gene Summary:</b>	Probably involved in transcriptional regulation. Binds to cruciform DNA (By similarity). In cells, binding to unmodified histone H3 regulates DOT1L functions including histone H3 'Lys-79' dimethylation (H3K79me2) and gene activation (By similarity).[UniProtKB/Swiss-Prot Function]