

## Product datasheet for MR231542

### MIIt10 (NM\_001252560) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MIIt10 (NM_001252560) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MIIt10
Synonyms:	Af10; B130021D15Rik; D630001B22Rik; mKIAA4140
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR231542 representing NM_001252560 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTCTCTAGCGACCGGCCGTGCTCACTGGAGGACGAGGTCTCCCATAGTATGAAGGAAATGATTGGAG  
GCTGTTGCGTTTGGCTCAGACGAGAGAGGCTGGGCCGAGAACCCTGGTTTATTGCGACGGGCACGGCTG  
CAGCGTCGCGGTGCATCAAGCTTGCTATGGCATTGTTCAAGTACCTACTGGACCGTGGTTTTGTAGGAAA  
TGTGAATCTCAGGAGAGAGCAGCCAGAGTGAGATGTGAGCTGTGTCCCATAAAGATGGAGCTTTAAAAA  
GAACAGATAATGGGGTTGGGCTCATGTGGTTTGTGCCCTCTATATTCCAGAGGTACAATTTGCCAATGT  
TTCTACAATGGAGCCAATCGTTTTACAGTCTGTCCACATGATCGTTATAATAAGACTTGCTATATATGT  
GATGAACAAGGACGAGAAAGCAAAGCAGCCACTGGTGCTTGATGACATGTAATAAACATGGATGTCGAC  
AGGCTTTCCATGTAACATGTGCTCAGTTTGCCGGGCTGCTTTGTGAAGAAGAAGGGAATGGCGCAGACAA  
TGTTCAACTACTGTGGCTACTGTAATACCCTTTAGTAAGCTGAAAAAGAGCAAACGGGGATCTAATAGG  
TCATATGAGCAAAGTTTAAAGTACTCTTCTCTCACTCTCAGGATAAGCATCATGAGAAAGAGAAAAAAA  
AATATAAAGAAAAGGACAAACACAAACAAAAACACAAGAAGCAACCAGAACCGTCACTGCCTTGGTTCC  
TTCTTTGACTGTTACTACAGAAAAAATTTACAAGCACTAGCAACAACCTCATATCTGGATCATTGAAG  
CGTTTGAAGATACTGCAGCAAGATTTACAATGCAAATTTCCAGGAAGTCTCTGCCCATACCTCTAGTG  
GAAAAGATGTTTCAGAGGCTAGAGGGTCAGAGGGCAAAGGGAAGAAATCTTCAGCTCACAGCTCAGGTCA  
AAGGGGAAGGAAGCCTGGTGCAGGAAGAAATCCAGGAACAGCTGTGTCAGCATCTAGCCCTTTCCACAA  
GGCAGTTTTTCAGGAACCTCAGGCAGTGTAAAGTCATCTTCTGGAAGTTCAGTGCAGTCTCCCCAGGACT  
TCTTAAGCTTTACAGACTCAGATCTGCGAAGTGACAGTTAACAACACACCCAGCAGCCATCATCAACCAA  
AGATGTACATAAAGGAGAGTCTGGAAGCCAGGAAGCGGCAGTAAACAGTTTTAGCTCTTTAGTTGGTCAC  
CCTGTGACCTCGACTGTTATTTACAGCCTAAAAGCTTTGACAATTCACCTGGAGAGTTGGGTAGTTCGA  
GCCTCCCTACAGCAGGATATAAGCGGGCTCAGACTTCTGGTATAGAAGAAGAAGCTGTAAGGAAAAAGAA  
ACGAAAAGGAAATAAGCAAAGCAAACATGGCCCCGGCCGACCCAAAGGAAACAAAAATCAAGAAAATGTT



[View online »](#)

TCTCACCTCTCAGTTTCTTGCTTACCAACATCGTCCGTAGCATCAGCTGCAGGAAGTGAACAAGCT  
 CTAGTCTTCAGAAATCTCCTACGCTGCTCAGGAATGGAAGTTTGCAGAGTCTTAGTGTGGCTCGTCTCC  
 AGTTGGCTCAGAAATTTCCATGCAGTATCGACATGATGGAGCTTGTCCAACAACCTACCTTCTCAGAGTTG  
 CTGAATGCAATACACAATGGTATTTATAACAGCAATGATGTAGCCGTATCCTTTCCAAACGTGGTGTCTG  
 GCTCAGGATCTAGTACTCCTGTCTTAGCTCTCATATACCTCAGCAGTCATCTGGTCATTTGCAACAGGT  
 GGGAGCTCTCTCCCCCTCAGTGCCTCATCTGTAACCCCTGCTGCTGCTACAACCTCAGGCAATACCGTT  
 TCTGGATCTTCTCAGTCAGGCAGCACCCATATGTATGCGAGTAGATTAAATCAGAATCCATCCATGG  
 CAGTTCTCATAGCTCAGTCTGAAAGCAGCCAAACAGATCAAGATCTTGGAGACAATGCCCGTAGCCTGGG  
 TGGCCGAGGAAGCTCGCCCCGAGGAAGCCTCTCTCCGAGATCCCCGTGAGCAACTTACAGCTTCGCTAT  
 GATCAACCGAGCAATAGCAGTTTGGAACTGTGCCTCCAGTAGCAGCAAGTATTGAACAGCTCTTGGAGA  
 GGCAGTGGAGTGAAGGACAGCAGTTTTTACTAGAGCAGGGGACTCCTGGTGACATTCTAGGAATGTTAAA  
 GTCATTACATCAACTTCAAGTTGAAAATCGAAGATTAGAAGAACAGATCAAAAATTTGACTGCCAAGAAA  
 GAACGTCTTCAGTTGTTGAATGCACAGCTTTCAGTGCCTTCCAGCCATAACGACAAACCCAGTCCGT  
 CCCATCAGATGCACACATACACAGCACAGACTGCTCCTCCTGATTCCCTGAACAGCAGTAAGAGCCC  
 ACATATAGGAAACAGCTTTTACCTGACAATTCTTCTCCTGTATTAATCAGGACTTGACCTCCAGTGG  
 CAAAGCACCAGCAGTTCTTCTGCTCTTCTACTCCCCCTCCTGCTGGCCAGAGTCTGCTCAGCAGAGCT  
 CTGGAGTCAGTGGGGTTCAGCAGGTGAATGGCGTGACAGTGGGGGCACTAGCTAGTGGGATGCAGACCGT  
 CACATCCACCATCCCAGCTGTGTCCGAGTGGGTGGAATAATTGGAGCTCTGCCAGGTAACCAACTGGCA  
 ATTAACGGCATTGTGGGAGCTTTAAATGGTGTGATTGAGACTCCAGTCACAATCTCCAGAACCCTGCC  
 CTCTCACCCACACCAGTGTACCACCTAATGCAGCGCATCCAATGCCGGCCGCGCACTGACCAACAGTGC  
 CTCGGGACTAGGGCTGCTGTCGGACCAGCAGAGACAGATGTTTATCCAGCAGCAGAGTTCCAGCAGCTG  
 TTAACCTCCAGCAGCTCACACCCGAACAGCATCAGGCCTTCTATACCAGCTGATGCAGCAGCAGCACC  
 ACCCGCTGAGCTCCAGCAGCTGCAGCTCCCGGGACCCACGCAGATCCCCATCAACAATCTCTTGCAGG  
 TGCTCAGGCGCCTCCACTCCACACAGCTACCACCAACCCCTTCTCACCATCCACGGGGACAGCAGCAGC  
 CAGAAGGTCACAAGACTTAGTGATAAAACTGGGCCTGTAGCTCAAGAGAAAAGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR231542 representing NM\_001252560

Red=Cloning site Green=Tags(s)

MVSSDRPVSLDEVSHSMKEMIGGCCVCSDERGWAENPLVYCDGHGCSVAVHQACYGIVQVPTGPWFCRK  
 CESQERAAVRCELCPHKDGLKRTDNGGWAHVVCALYIPEVQFANVSTMEPIVLQSVPHDRYNKTCYIC  
 DEQGRESKAATGACMTCNKHGCRQAFHVTCAQFAGLLCEEEGNGADNVQYCYGYKHYHFKLKKSKRGSNR  
 SYEQSLSDSSSHSQDKHHEKEKKYKEKDKHKQKHKKQPEPSPALVPSLTVTTEKTYTSTSNNSISGSLK  
 RLEDTAARFTNANFQEVSAHTSSGKDVSEARGSEGKGGKSSAHSSGQRGRKPGAGRNPPTAVSASSFPFQ  
 GSFSGTPGSVKSSSGSSVQSPQDFLSFTDSDLRSDSYHTHTQPPSSTKDVHKGESGSQEAAVNSFSSLVGH  
 PVTSTVISQPKSFDNSPGEGLGSSSLPTAGYKRAQTSGIEEEAVKEKKRKGKQSKHGPGRPKGNKQENV  
 SHLSVSSASPTSSVASAAGSVTSSSLQKSPTLLRNGSLQSLSVGSSPVGSEISMQYRHDGACPTTTFSEL  
 LNAIHNGIYNSNDVAVSFPNVVSGSGSSTPVSSSHIPQQSSGHLQQVQALSPSAASSVTPAAATTQANTV  
 SGSSLQAPAHMYGSRLNQNPSMAVLI AQSESSQTDQDLGDNARSLGGRGSSPRGSLSPRSPVSNLQRLRY  
 DQPSNSSLETVPPVAASIEQLLERQWSEGQFLLEQGTGPDILGMLKSLHQLQVENRRLLEEIQKNTAKK  
 ERLQLLNAQLSVPFPAITTNPSPSHQMHTYTAQTAPPPDSLNSKSPHIGNSFLPDNSLPVLNQDLTSSG  
 QSTSSSSALSTPPPAGQSPAQQSSGVQVNGVTVGALASGMQTVTSTIPAVSAVGGIIGALPGNQLA  
 INGIVGALNGVIQTPVTISQNPAPLTHTSVPPNAAHPMPAAAL TNSASGLGLLSDQQRQMF IQQQFQQL  
 LNSQQLTPEQHQAFLYQLMQQHQHPPQLQLPGPTQIPINNLLAGAQAAPLHTATTNPFLLTIHGDSTS  
 QKVTRLSDKTGPVAQEK

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001252560

**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.

**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\\_001252560.1](#), [NP\\_001239489.1](#)

**RefSeq Size:** 5065 bp

**RefSeq ORF:** 3207 bp

**Locus ID:** 17354

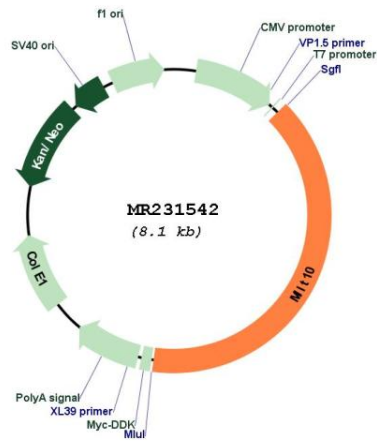
**UniProt ID:** [O54826](#)

**Cytogenetics:** 2 A3

**MW:** 113 kDa

**Gene Summary:** 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]

**Product images:**



Circular map for MR231542