

## Product datasheet for **MR227569**

### **Mta1 (NM\_054081) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mta1 (NM_054081) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mta1
Synonyms:	MGC118456
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR227569 representing NM\_054081  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCGCCAACATGTACAGGGTCGGAGACTATGTCTACTTTGAGAACTCCTCCAGCAACCCGTACCTGA  
 TCCGCAGGATTGAAGAGCTTAACAAGACAGCCAACGGGAATGTGGAGGCCAAAGTGGTGTGTTTCTACAG  
 AAGGCGGGACATTTCCAGCAGCCTCATCGCGCTGGCGGACAAGCATGCAAGGGAAGTGGAGGAGGAGGTA  
 GAAAACCCAGAGATGGTGGACCTGCCTGAGAACTTAAGCATCAGCTGCGGCATCGAGAAGTGTCTCTGT  
 CTCGGCAGTTGGAGTCTCTGCCTGCCACCCACATCAGGGGCAAGTGCAGTGTACCCTGTCAATGAGAC  
 GGAGTCACTCAAGTCTACTTGGAGCGTGGAGTTTCTTCTTCTACTCTAGTCTACGACCCACAGCAG  
 AAGACCTCCTGGCTGATAAAGGGGAAATTCGTGTAGGAAACCGGTACCAGGCTGACATCACTGACTTGC  
 TGAAAGAAGGTGAGGAGGACGGCCGCGATCAGTCAAACCTGGAGACCAAGGTGTGGGAAGCCACAATCC  
 ACTTGTGGATAAGCAGATTGACCAGTTTCTGGTGGTGGCCGCTCTGTGGGTACCTTTGCACGGGCCCTG  
 GATTGCAGCAGCTCCGTGCGGCAGCCTAGCCTGCACATGAGTGGCGCAGCGGCCTCCCGAGACATCACCC  
 TGTTCATGCTATGGACACGCTGCACAAGAATCTACGACATCTCCAAGGCCATCTCGGCCCTCGTGCC  
 CCAGGGTGGGCCAGTGTCTGCCGCGATGAGATGGAGGAGTGGTCCGCATCAGAAGCCAACCTTTTTGAG  
 GAAGCTCTGGAATAATGGGAAAGATTTACCAGCATTCAACAAGATTTTCTCCATGGAAGTCGCTCA  
 CCAGCATCATTGAGTATTACTACATGTGGAAGACCACCCGACAGATACGTCCAGCAGAAACGCTTGAAGC  
 AGCTGAAGCTGAGAGCAAGTTAAGCAGGTTTATATCCCAACTATAACAAGCCCAACCCAAACCCAGATC  
 AGCGCCAGCAGTGTCAAGGCCACTGTAGTGAATGGCACAGGGACACCAGGCCAGAGCCCCGGGGCCGGTC  
 GGGCTGCGAGAGCTGTTACACCACACAGTCTTACCAGTGGTATTCTTGGGGTCCCCCTAACATGCAGTG  
 TCGCCTCTGCGCATCTTGTGGACATATTGGAAGAAATATGGTGGCTTGAATAAGCCCAACCCGTTAGAT  
 GGAGAGAGGCCGGGACCAACCGCAATAACATGAGTCCCCATGGCATCCCAGCTCGGAGCAGTGGGAGCC  
 CCAAGTTTGCCATGAAGACAAGGCAGGCCCTTCTACCTGCATACTACCAAGTTGACACGCATTGCCCGCG  
 CTTGTGCCGTGAGATCCTACGCCATGGCATGCTGCCCGCACCCCTACATGCCATCAACAGCGCAGCA  
 ATCAAGGCTGAATGCACAGCACGGCTGCCCGAAGCCTCCAGAGCCCACTGGTGTGAAGCAGGTAGTAC  
 GGAAGCCCCTGGAGGCCGTGCTCCGGTATCTTGGAGCCATCCCCGCCCGCCTAAGCCCCGACCCCGTGA  
 GAGTTCATCCAGTGTGCTCAGCAGTCTGACCCCTGCCAAGTCAGCCCTGTATCAACAACGGCTCCCCT  
 ACCATCCTGGGCAAGAGGAGCTACGAGCAGCACAATGGGGTAGATGGCAACATGAAGAAGCGCCTTTGA  
 TGCCAGTAGGGTCTGGCAAACCATGGACAGACCAGGCACATGGGACCAAGTCGGAATCTCCTGCTCAA  
 TGGGAAGTCTACCCACCAAGTGCGCCTAATCCGTGGTGGCTCCCTGCCTCCAGTCAAGCGGGCGCGA  
 ATGAACTGGATCGACGCCCCAGATGATGATTTTACATGGCCACCAGAGACCAGGAAAATCCGAAAGC  
 TGCTCTCATCCTCAGAAACCAAGCGTGTGCCCGCCGCCCTACAACCCATTGCCCTGCGCCAGAGCCA  
 GGCCCTGCCGCTGCGGCCACCCCACTGCACCAGTCAATGATGAGCCCATTTGTTATTGAGGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA



**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_054081.2](#), [NP\\_473422.2](#)

**RefSeq Size:** 2775 bp

**RefSeq ORF:** 2097 bp

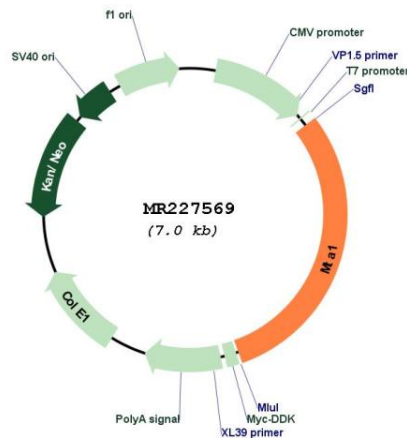
**Locus ID:** 116870

**Cytogenetics:** 12 F1

**MW:** 79.6 kDa

**Gene Summary:**

Transcriptional coregulator which can act as both a transcriptional corepressor and coactivator. As a part of the histone-deacetylase multiprotein complex (NuRD), regulates transcription of its targets by modifying the acetylation status of the target chromatin and cofactor accessibility to the target DNA. In conjunction with other components of NuRD, acts as a transcriptional corepressor of BRCA1, ESR1, TFF1 and CDKN1A. Acts as a transcriptional coactivator of BCAS3, PAX5 and SUMO2, independent of the NuRD complex. Stimulates the expression of WNT1 by inhibiting the expression of its transcriptional corepressor SIX3. Regulates p53-dependent and -independent DNA repair processes following genotoxic stress. Regulates the stability and function of p53/TP53 by inhibiting its ubiquitination by COP1 and MDM2 thereby regulating the p53-dependent DNA repair. Plays an important role in tumorigenesis, tumor invasion, and metastasis. Plays a role in the regulation of the circadian clock and is essential for the generation and maintenance of circadian rhythms under constant light and for normal entrainment of behavior to light-dark (LD) cycles. Positively regulates the CLOCK-ARNTL/BMAL1 heterodimer mediated transcriptional activation of its own transcription and the transcription of CRY1. Regulates deacetylation of ARNTL/BMAL1 by regulating SIRT1 expression, resulting in derepressing CRY1-mediated transcription repression. With Tfcp2l1, promotes establishment and maintenance of pluripotency in embryonic stem cells (ESCs) and inhibits endoderm differentiation (PubMed:28982712). [UniProtKB/Swiss-Prot Function]

**Product images:**


Circular map for MR227569