

## Product datasheet for **MR203548**

### **Mettl1 (NM\_010792) Mouse Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Mettl1 (NM_010792) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mettl1
Synonyms:	2810012D02Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR203548 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTGTAAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**

ATGATGGCGGGAGCCGAAGCCCCCAGCCGCAGAAGCGCTACTACCGGCAGCGCGCCCACTCCAACCCCA  
TGGCAGACCACACTGCGCTACCCTGTGAAGCCAGAGGAAATGGACTGGTCTGAGCTTTACCCAGAGTT  
CTTTGCTCCGCTTAATCAAATAAGAACCATGATGATCCAAAGGATGAGAAAGAAAAGCACTCTGGGGCC  
CAAGTGGAGTTTGCAGACATAGGCTGTGGCTATGGTGGCTTGTAGTGGCACTGTCACCGCTCTTCCAG  
ATACCCTGATTCTGGGTCTGGAGATTCCGGTGAAGGTGTCGCACTATGTGCAGGACAGGATTCGGGCCCT  
CCGTGCAGCTCCCGGGGGCGGATTCCAGAACATCGCCTGTCTCCGAAGTAACGCCATGAAACACCTTCCT  
AATTTCTTCCGAAGGGCCAGCTGGCAAAGATGTTCTTCTCTTCCCGGACCCACACTTTAAGCGAACGA  
AGCATAAATGGAGAATCATCAGCCCTACGCTTCTGGCAGAGTATGCCTACGTGCTGAGAGTCGGGGGCT  
GGTGTACACCGTCACCGACGTGCCGGAGCTGCATGAGTGGATGTGCACCCACTTTGAAGAACACCCACTA  
TTTGAGTGTGTGCTCTTGAAGAGCTAAGTGAAGACCCATTGTGGAACATCTAGGCAGTTCAACTGAGG  
AAGGAAAGAAAGTTCTACGCAATGGGGGAAGAATTTCCAGCCGTCTTCCGAAGAATACAGGATCCCT  
CTCCAGGCAGTGACCCCAACCCACCCTGCCT

**ACGCGT**ACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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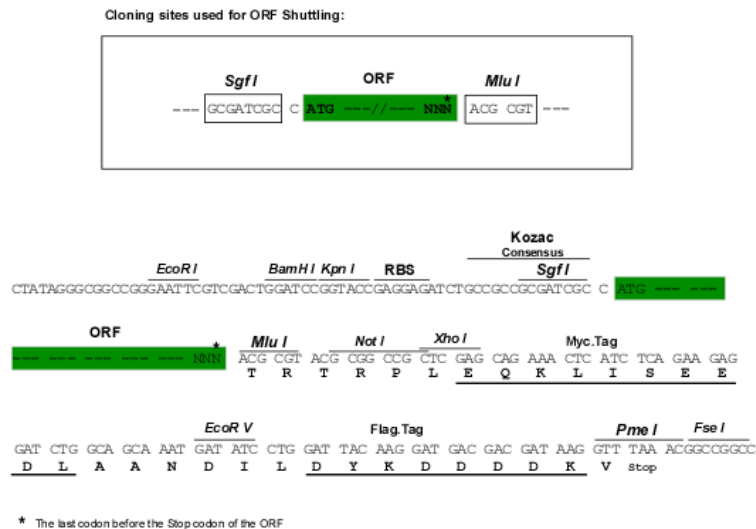
**Protein Sequence:** >MR203548 protein sequence  
 Red=Cloning site Green=Tags(s)

MMAGAEAPQPQKRYRQRAHSNPMADHTLRYPVKPEEMDWSELYPEFFAPLNQKNHDDPKDEKEKHSGA  
 QVEFADIGCGYGGLLVALSPLFPDTLILGLEIRVKVSDYVQDRIRALRAAPGGGFQNIACLRSNAMKHLPL  
 NFFRKGQLAKMFLLFPDPHFKRTKHKWRIISPTLLAEYAYVLRVGGGLVYTVTDVPELHEWMCTHFEEHPL  
 FECVPLEELSEDPIVEHLGSSTEEGKKVLRNGGKNFPAVFRRIQDPLLQAVTPNPTLP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_010792

**ORF Size:** 804 bp

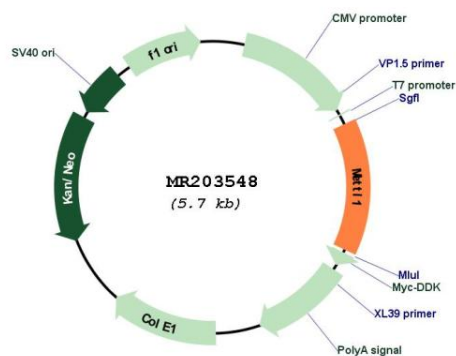
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_010792.1, NP_034922.1</u>
<b>RefSeq Size:</b>	887 bp
<b>RefSeq ORF:</b>	807 bp
<b>Locus ID:</b>	17299
<b>UniProt ID:</b>	<u>Q9Z120</u>
<b>Cytogenetics:</b>	10 D3
<b>MW:</b>	30.6 kDa
<b>Gene Summary:</b>	<p>Methyltransferase that mediates the formation of N(7)-methylguanine in a subset of RNA species, such as tRNAs, mRNAs and microRNAs (miRNAs) (PubMed:29983320). Catalyzes the formation of N(7)-methylguanine at position 46 (m7G46) in tRNA. Also acts as a methyltransferase for a subset of internal N(7)-methylguanine in mRNAs (PubMed:29983320). Internal N(7)-methylguanine methylation of mRNAs regulates translation (PubMed:29983320). Also methylates a specific subset of miRNAs, such as let-7. N(7)-methylguanine methylation of let-7 miRNA promotes let-7 miRNA processing by disrupting an inhibitory secondary structure within the primary miRNA transcript (pri-miRNA) (By similarity). Acts as a regulator of embryonic stem cell self-renewal and differentiation (PubMed:29983320).[UniProtKB/Swiss-Prot Function]</p>

## Product images:



Circular map for MR203548