

## Product datasheet for **MC202909**

### Nat10 (NM\_153126) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Nat10 (NM_153126) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Nat10
Synonyms:	AI429152
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)

**Fully Sequenced ORF:** >BC034516 sequence for NM\_153126  
 CATAGCTGTAGTGGTCCCCTCCCTTCTGAGCACTGCCACGTGTCTGCCACTTAAGCGGATTACAG  
 TGCAGCGCGGCCCGCGTGGCTCAGCTGTGTAGAATTTCTCCAGCAGATTGGTCAGCTGGGTAGCA  
 ACTCGGTGTCTTACGTGCTTCCGTTGTGCAGCTGCCTGGTGTGCGCCGAGCAGGGCGCAGTGATAGCT  
 TTTCATCATGAATCGGAAGAAGGTGGATAACCGAATTCGAATTCTCATTGAGAATGGCGTAGCTGAGCGG  
 CAGAGGTCTTTTTGTTGTAGTTGGGGATCGAGGAAAAGATCAGGTGGTTATTCTTCATCATATGTTGT  
 CCAAGGCAACTGTGAAGGCTCGGCCCTCAGTCCTGTGGTGTATAAGAAAGAGCTGGGATTTAGCAGTCA  
 CCGGAAGAAGAGGATGCGGCAGCTACAGAAGAAAATAAAGAGTGGGACCTTGAACCTAAAGCAAGATGAC  
 CCCTTTGAGCTTTTTGTAGCAGCCACAACATTCGCTACTGCTACTACAATGAAACCCACAAGATTCTGG  
 GCAATACTTTCCGCATGTGTGCTCCTCCAGGATTTGAAGCGTAACTCCGAACCTGTTGGCCAGAAGTGT  
 AGAAACAGTAGAAGGTGGTGGACTGGTGGTGCATCCTCCTGCGGACCATGAACTCGCTTAAGCAGCTGTAC  
 ACGATGACTATGGATGTGCATTCAGGTACAGGACTGAGGCCATCAGGACGTGGTGGGAAGATTTAACG  
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 CATCTCCTCCCACGTGGCCAGCATTGAAGCCTTACCTCCTCAGGCCCGGATGAGAATCTCAGTCTGCT  
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 GCAAGACCCTGGACCAGGCCAAAGCTGTCTTGAATTCATTGAGGGGATCTCGGAGAAGACTCTAAGGAG  
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 TTGTATTTAAAGGATTTGATGCTCTGCAGTATCAGGAGCATCTGGATTATGAGATTGTACAGTCCGCTGAA  
 CCCCAGTTTAATAAAGCGGTGATCAGGGTCAATGTGTTCCGAGAGCACAGACAGACTATTCAGTACATC  
 CACCCTGCAGATGCTGTGAACTGGGCCAGGCTGAGCTGGTTGTGATAGATGAAGCTGCCCTATTTCCC  
 TCCCCCTGGTGAAGAGCCTGCTTGGGCCCTACCTGTTTTCATGGCATCTACTATCAATGGCTACGAGGG  
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 TCCAAGAGTCAATCCGATACGCCCTGGGGATGCAGTGGAGAAGTGGCTTAATGACCTGCTGTGCCTGGA  
 TTGCCTCAACATCACCCGCATCGTTTCCGGCTGCCCTTGCTGAGGCTGTGAGCTCTACTATGTTAAC  
 AGAGATACCCTCTTTGCTACCACAAGGCCTCTGAAGTTTTCTCCAGCGGCTCATGGCTCTCTATGTGG



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CTTCTCATTACAAGAACTCTCCCAACGACCTGCAGATGCTCTCAGACGCTCCTGCTCACCACCTTCTCTG
CCTCCTGCCACCTGTGCCCCACCCAGAATGCCCTGCCTGAAGTCTTGCAGTTGTCCAGGTGTGCCTT
GAGGGAGAGATTTCTCGTCAGTCCATTTTGAATAGCCTCTCTCGAGGCAAGAAGGCTTCTGGGGACCTGA
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GCCAGTCGGCTCTTCTTGGGAATTGGCCTACAGCACAAAGTCTGTGGATCAGCTGGAAGGAGATTG
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TGTGCAGGAAAAGGCTATTGAGGAGCAGATGGTGGCAGTGAAGGATGTGGTCATGGAGCCCACTATGAAG
ACCCTGAGTGTGACCTGGATGAAGCAGCAAAGGAATTCAGGAGAAACACAAGAAGGAAGTCGGGAAGC
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TGAAGACAAAGTCACTCTTGAACAGGCTTAGAACTTGGTGTGGGCAAGCTCTGGCATTGTGAGGGG
CTGTCTTCCACCCAGGTGAGTCTCACTTTGGCTTGTCTCCACTGTGGCTGCTGTGCTGGCTCCTGGCCT
CCCTGTGCTCCAGCACACGGCTTCTGGAGGCACACGCTGCCTCACTGCAGACCTGTCCCAGACTGAGG
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CCCAGGAAAGGCTTAGGTAGGCTGCAACATCTGAGCCCCAGATGCCTTTTGGTTGCCTCTTCATTTGGGA
GAGACTATCGAGAAAGACTTTACTACAAAAATGAGCGGAGAGAGAATATTTTAAATAAATGATGTCTTG
GAAGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAA
    
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- Restriction Sites:** RsrII-NotI
- ACCN:** NM\_153126
- Insert Size:** 3075 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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: [BC034516](#), [AAH34516](#)

RefSeq Size: 3934 bp

RefSeq ORF: 3075 bp

Locus ID: 98956

UniProt ID: [Q8K224](#)

Cytogenetics: 2 E2

**Gene Summary:** RNA cytidine acetyltransferase that catalyzes the formation of N(4)-acetylcytidine (ac4C) modification on mRNAs, 18S rRNA and tRNAs. Catalyzes ac4C modification of a broad range of mRNAs, enhancing mRNA stability and translation. mRNA ac4C modification is frequently present within wobble cytidine sites and promotes translation efficiency. Mediates the formation of ac4C at position 1842 in 18S rRNA (By similarity). May also catalyze the formation of ac4C at position 1337 in 18S rRNA (By similarity). Required for early nucleolar cleavages of precursor rRNA at sites A0, A1 and A2 during 18S rRNA synthesis (By similarity). Catalyzes the formation of ac4C in serine and leucine tRNAs (By similarity). Requires the tRNA-binding adapter protein THUMPD1 for full tRNA acetyltransferase activity but not for 18S rRNA acetylation. In addition to RNA acetyltransferase activity, also able to acetylate lysine residues of proteins, such as histones, microtubules, p53/TP53 and MDM2, in vitro. The relevance of the protein lysine acetyltransferase activity is however unsure in vivo. Activates telomerase activity by stimulating the transcription of TERT, and may also regulate telomerase function by affecting the balance of telomerase subunit assembly, disassembly, and localization (By similarity).[UniProtKB/Swiss-Prot Function]