

Product datasheet for MR211470

Nat10 (NM_153126) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nat10 (NM_153126) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Nat10
Synonyms:	A1429152
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR211470 representing NM_153126 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAATCGGAAGAAGGTGGATAACCGAATTCGAATTCATTGAGAATGGCGTAGCTGAGCGGCAGAGGT
CTCTTTTTGTTGTAGTTGGGGATCGAGGAAAAGATCAGGTGGTTATTCTTCATCATATGTTGTCCAAGGC
AACTGTGAAGGCTCGGCCCTCAGTCCTGTGGTGTATAAGAAAGAGCTGGGATTTAGCAGTCACCGGAAG
AAGAGGATGCGGCAGCTACAGAAGAAAAAAGAGTGGGACCTTGAACCTAAAGCAAGATGACCCCTTTG
AGCTTTTTGTAGCAGCCACAAACATTTCGCTACTGCTACTACAATGAAACCCACAAGATTCTGGGCAATAC
TTTCGGCATGTGTGCTCCAGGATTTGAAGCGTTAACTCCGAACTTGTGGCCAGAAGCTAGAAACA
GTAGAAGGTGGTGGACTGGTGGTCATCCTCTGCGGACCATGAACTCGCTTAAGCAGCTGTACACGATGA
CTATGGATGTGCATTCCAGGTACAGGACTGAGGCCCATCAGGACGTGGTGGGAAGATTTAACGAGAGGTT
TATTCTCTCTGGCCTCTTGAAGAAGTGTCTGGTCATTGACGATCAGCTCGACATCCTGCCCATCTCC
TCCCACGTGGCCAGCATTGAAGCCTTACCTCCTCAGGCCCGGATGAGAATCTCAGTCCTGCTGCTCTGG
AGCTGCTGGAGTTGAAAGAGAGCTTGCAGGACACTCAGCCCGTGGGTGTTCTGGTGGACTGCTGCAAGAC
CCTGGACCAGGCCAAAGCTGTCTTGAATTCATTGAGGGGATCTCGGAGAAGACTAAGGAGTACTGTA
GCCCTCACCGCTGCCCGAGGAAGGGCAAGTCTGCGGCCCTGGGCTGGCTATCGCTGGAGCAGTGGCAT
TCGGGTATTCGAATTTTTGTTACCTCCCAAGCCCGGATAACCTCCACACGCTGTTTGAATTTGTATT
TAAAGGATTTGATGCTCTGCAGTATCAGGAGCATCTGGATTATGAGATTGTACAGTCGCTGAACCCCGAG
TTTAATAAAGCGGTGATCAGGGTCAATGTGTTCCGAGAGCACAGACAGACTATTCAGTACATCCACCCTG
CAGATGCTGTGAAACTGGCCAGGCTGAGCTGGTTGTGATAGATGAAGCTGCCGCTATCCCTCCCTCCCT
GGTGAAGAGCCTGCTTGGGCCCTACCTGGTTTTTCATGGCATCTACTATCAATGGCTACGAGGGCACTGGC
CGGTCACTGTCCCTCAAGCTCATTCAACAACCTCCGTCAGCAGAGTGCCAGAGCCAGGTCAGCACCCTG
CTGAGAACAAGACCACAACGACAGCCAGACTGGCCTCAGCTCGAACCTTGCATGAGGTTTCCCTCCAAGA
GTCAATCCGATACGCCCTGGGATGCAGTGGAGAAGTGGCTTAATGACCTGCTGTGCTGGATTGCCTC



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AACATCACCCGCATCGTTTCCGGCTGCCCTTGCCTGAGGCCTGTGAGCTCTACTATGTTAACAGAGATA
 CCCTCTTTTGGTACCACAAGGCCTCTGAAGTTTTCTCCAGCGGCTCATGGCTCTCTATGTGGCTTCTCA
 TTACAAGAACTCTCCCAACGACCTGCAGATGCTCTCAGACGCTCTGCTCACCACCTCTTCTGCCTCCTG
 CCACCTGTGCCCCCACCAGAATGCCCTGCCTGAAGTGCCTGCAGTTGTCCAGGTGTGCCTTGAGGGAG
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 GACAGTGTCCGAACAGTTTCAAGATCCAGACTTTGGAGGCCTTCTGGTGGACGGTGTTCGAATTGCT
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 GCAAGTTCCTTGTCTGGAGGAAAAAGTCTTGGAGACACCACAAGAAATCCGCACCGTGAGCAGTAGGC
 TGTGAGCTTGTGGAAGAAGTTATTACTCCCCGGAAGGATCTGCCCCCTTGTCTCTCAAGTTGAATGAG
 AGGCCTGCAGAGCGCCTGGATTACCTGGGGTTTCTATGGGCTGACCCCAAGGCTTCTCAAGTTCTGGA
 AACGAGCTGGATTTGTTCTGTCTATTTGAGACAGACCCCAAACGACCTGACTGGGGAACACTCGTGCAT
 TATGCTGAAGACGCTGGCCGATGAGGATGAGGCTGAGCAGGGAGCTTGGCTGGCAGCATTTTGGAAAGAT
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 CCTTCCCTATGACCTGAAGCGTCTAGAGATGACTCTCGGAACATGGTCGATTACCACCTCATCATGGAT
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 CGGCTCTTCTTGGGAATTGGCCTACAGCACAAGTCTGTGGATCAGCTGAAAAAGGAGATTGAGCTGCC
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 GAAAAGGCTATTGAGGAGCAGATGGTGGCAGTGAAGGATGTGGTCATGGAGCCCACTATGAAGACCTGA
 GTGATGACCTGGATGAAGCAGCAAAGGAATTCAGGAGAAACACAAGAAGGAAGTCGGGAAGCTGAAGGA
 CATGGACCTCTCAATATGTAATTCGTGGGACGATGAAGAGTGAAGTGAAGTTTGGAGCAAAGCAGGG
 CAGAATGCCTCCATTGTTAGTTTGAAGAGTGAAGAAAGGAAACTGAAACAAAACAAGAACCCCAAC
 AGAGCAAGAAGTTGAAGAAGAGAGATAACAACAGAAAGGATATGAAACTGAAGCGAAAGAAG

ACGCGTACGCGGCGCCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR211470 representing NM_153126
 Red=Cloning site Green=Tags(s)

MNRKKVDNRIRILIENGAERQSLFVVVGDGRGKDQVVILHHMLSKATVKARPSVLWCYKKELGFSHRK
 KRMRQLQKKIKSGTLNLKQDDPFELFVAATNIRYCYNETHKILGNTFGMCVLQDFEALTPNLLARTVET
 VEGGLVIVILLRTMNSLKQLYTMMDVHSRYRTEAHQDVVGRFNERFILSLASCKKCLVIDDQLDILPIS
 SHVASIEALPPQAPDENLSPAALLELELKEQLDTPVGVLDCCCKLDQAKAVLKFIEGISEKTLRSTV
 ALTAARGRGKSAALGLAIAGAVAFGYSNIFVTSPSPDNLHTLFEFVFKGFDALQYQEHLDYEIVQSLNPE
 FNKAVIRVNVFREHRQTIQYIHPADAVKLGQELVVIDEAAAIPLPLVKSLLGPYLVFMASTINGYEGTG
 RSLSLKLIQQLRQSAQSQVSTTAENKTTTTARLASARTLHEVSLQESIRYAPGDAVEKWLNDLLCLDCL
 NITRIVSGCPLPEACELYYVNRDTLFCYHKASEVFLQRLMALYVASHYKNSPNDLQMLSDAPAHHLFCLL
 PPVPPTQNALPEVLAVVQVCLEGEISRQSIILNSLSRGKASGDLIPWTVSEQFDPDFGGLSGGRVRIA
 VHPDYQGMGYGSRALQLLQMYEGKFPCLLEEKVLETPQEIRTVSSEAVSLLLEEVIPTPKDLPPLLLKLINE
 RPAERLDYLGVSYGLTPRLLKFWKRAGFVPVYLRQTPNDLTGEHSCIMLKTLADEDEAEQGAWLAAFWKD
 FRRRFLALLSYQFSTFSPALSLNIIQNRNVAKSALPALGREHLEALFLPYDLKRLKEMYSRNMVDYHLIMD
 LIPAIRLYFLNQLGDLSSAAQSALLLIGLQHKSVQLEKEIELPSGQLMGLFNRIIRKVVKLFNDVQ
 EKAIEEQMVAVKDVVMEPTMKTLSDDLDEAAKEFQEKHKKEVGKLDMDLSQYVIRGDDEEWNEVLKAG
 QNASIVSLKSDKKRKLKLETKQEPKQSKLKKRDNNRDKMLKRRK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mm9040_a05.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_153126

ORF Size: 3072 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_153126.3](#)

RefSeq Size: 3856 bp

RefSeq ORF: 3075 bp

Locus ID: 98956

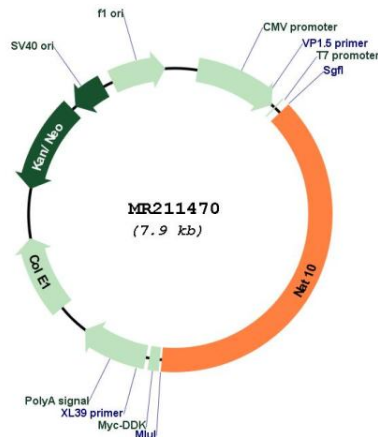
UniProt ID: [Q8K224](#)

Cytogenetics: 2 E2

MW: 115.9 kDa

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]

Product images:



Circular map for MR211470