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Product datasheet for MG211470

Nat10 (NM_153126) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Nat10 (NM_153126) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Nat10
Synonyms:	AI429152
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG211470 representing NM_153126
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGAATCGGAAGAAGGTGGATAACCGAATTCGAATTCTCATTGAGAATGGCGTAGCTGAGCGGCAGAGGT
CTCTTTTTGTTGTAGTTGGGGATCGAGGAAAAGATCAGGTGGTTATTCTTCATCATATGTTGTCCAAGGC
AACTGTGAAGGCTCGGCCCTCAGTCCTGTGGTGTTATAAGAAAGAGCTGGGATTTAGCAGTCACCGGAAG
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TTTCGGCATGTGTGTCCTCCAGGATTTTGAAGCGTTAACTCCGAACTTGTTGGCCAGAACTGTAGAAACA
GTAGAAGGTGGTGGACTGGTGGTCATCCTCCTGCGGACCATGAACTCGCTTAAGCAGCTGTACACGATGA
CTATGGATGTGCATTCCAGGTACAGGACTGAGGCCCATCAGGACGTGGTGGGAAGATTTAACGAGAGGTT
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TAAAGGATTTGATGCTCTGCAGTATCAGGAGCATCTGGATTATGAGATTGTACAGTCGCTGAACCCCGAG
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GTCAATCCGATACGCCCCTGGGGATGCAGTGGAGAAGTGGCTTAATGACCTGCTGTGCCTGGATTGCCTC

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AACATCACCCGCATCGTTTCCGGCTGCCCCTTGCCTGAGGCCTGTGAGCTCTACTATGTTAACAGAGATA
CCCTCTTTTGCTACCACAAGGCCTCTGAAGTTTTCCTCCAGCGGCTCATGGCTCTCTATGTGGCTTCTCA
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CAGAATGCCTCCATTGTTAGTTTGAAAAGTGACAAGAAAAGGAAACTGGAAACAAAACAAGAACCCAAAC
AGAGCAAGAAGTTGAAGAAGAGAGATAACAACAGAAAGGATATGAAACTGAAGCGAAAGAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG211470 representing NM_153126
Red=Cloning site Green=Tags(s)

MNRKKVDNRIRILIENGVAERQRSLFVVVGDRGKDQVVILHHMLSKATVKARPSVLWCYKKELGFSSHRK
KRMRQLQKKIKSGTLNLKQDDPFELFVAATNIRYCYYNETHKILGNTFGMCVLQDFEALTPNLLARTVET
VEGGGLVVILLRTMNSLKQLYTMTMDVHSRYRTEAHQDVVGRFNERFILSLASCKKCLVIDDQLDILPIS
SHVASIEALPPQAPDENLSPAALELLELKESLQDTQPVGVLVDCCKTLDQAKAVLKFIEGISEKTLRSTV
ALTAARGRGKSAALGLAIAGAVAFGYSNIFVTSPSPDNLHTLFEFVFKGFDALQYQEHLDYEIVQSLNPE
FNKAVIRVNVFREHRQTIQYIHPADAVKLGQAELVVIDEAAAIPLPLVKSLLGPYLVFMASTINGYEGTG
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NITRIVSGCPLPEACELYYVNRDTLFCYHKASEVFLQRLMALYVASHYKNSPNDLQMLSDAPAHHLFCLL
PPVPPTQNALPEVLAVVQVCLEGEISRQSILNSLSRGKKASGDLIPWTVSEQFQDPDFGGLSGGRVVRIA
VHPDYQGMGYGSRALQLLQMYYEGKFPCLEEKVLETPQEIRTVSSEAVSLLEEVITPRKDLPPLLLKLNE
RPAERLDYLGVSYGLTPRLLKFWKRAGFVPVYLRQTPNDLTGEHSCIMLKTLADEDEAEQGAWLAAFWKD
FRRRFLALLSYQFSTFSPALSLNIIQNRNVAKSALPALGREHLEALFLPYDLKRLEMYSRNMVDYHLIMD
LIPAISRLYFLNQLGDLSLSAAQSALLLGIGLQHKSVDQLEKEIELPSGQLMGLFNRIIRKVVKLFNDVQ
EKAIEEQMVAVKDVVMEPTMKTLSDDLDEAAKEFQEKHKKEVGKLKDMDLSQYVIRGDDEEWNEVLSKAG
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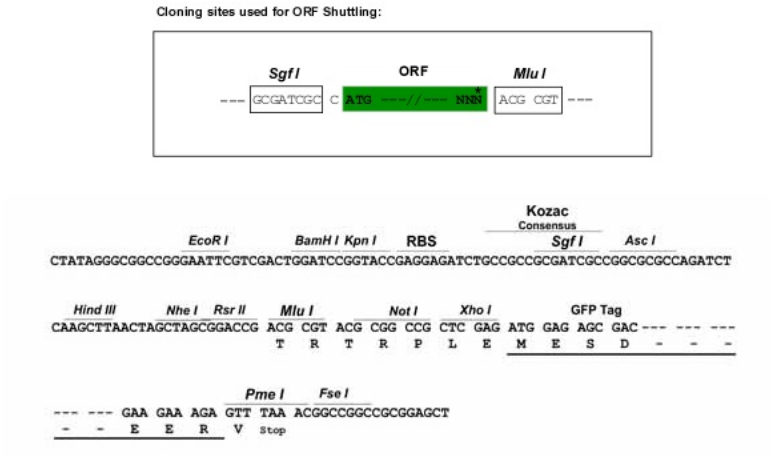
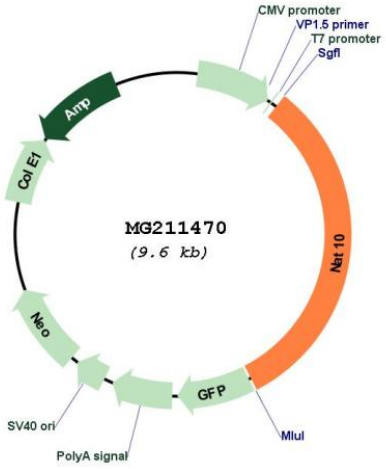
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



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_153126.1
RefSeq Size:	3856 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]