OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RG228281

NAT1 (NM_001160175) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NAT1 (NM_001160175) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	NAT1
Synonyms:	AAC1; MNAT; NAT-1; NATI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG228281 representing NM_001160175
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTGTTATTACTCTTACACAAGGAGGCAGCCCTCGAGCCACAGGGTCCAGCTGTTGGCTATAATAGCC
TACCGGTCTCTGATGATCACCATGTTTCTGGAATTCAAGCCAGGAAGAAGCAGCAATCTGTCTTCTGGAT
TAAAACTGAAGATCAACCTACTTTCAACTTACTAAGAAAGGGGATCATGGACATTGAAGCATATCTTGAA
AGAATTGGCTATAAGAAGTCTAGGAACAAATTGGACTTGGAAACATTAACTGACATTCTTCAACACCAGA
TCCGAGCTGTTCCCTTTGAGAACCTTAACATCCATTGTGGGGATGCCATGGACTTAGGCTTAGAGGCCAT
TTTTGATCAAGTTGTGAGAAGAAATCGGGGTGGATGGTGTCTCCAGGTCAATCATCTTCTGTACTGGGCT
CTGACCACTATTGGTTTTGAGACCACGATGTTGGGAGGGTATGTTTACAGCACTCCAGCCAAAAAATACA
GCACTGGCATGATTCACCTTCTCCTGCAGGTGACCATTGATGGCAGGAACTACATTGTCGATGCTGGGTT
TGGACGCTCATACCAGATGTGGCAGCCTCTGGAGTTAATTTCTGGGAAGGATCAGCCTCAGGTGCCTTGT
GTCTTCCGTTTGACGGAAGAGAATGGATTCTGGTATCTAGACCAAATCAGAAGGGAACAGTACATTCCAA
ATGAAGAATTTCTTCATTCTGATCTCCTAGAAGACAGCAAATACCGAAAAATCTACTCCTTTACTCTTAA
GCCTCGAACAATTGAAGATTTTGAGTCTATGAATACATACCTGCAGACATCTCCATCATCTGTGTTTACT
AGTAAATCATTTTGTTCCTTGCAGACCCCAGATGGGGTTCACTGTTTGGTGGGCTTCACCCTCACCCATA
GGAGATTCAATTATAAGGACAATACAGATCTAATAGAGTTCAAGACTCTGAGTGAGGAAGAAATAGAAAA
AGTGCTGAAAAATATATTTAATATTTCCTTGCAGAGAAAGCTTGTGCCCAAACATGGTGATAGATTTTTT
ACTATT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

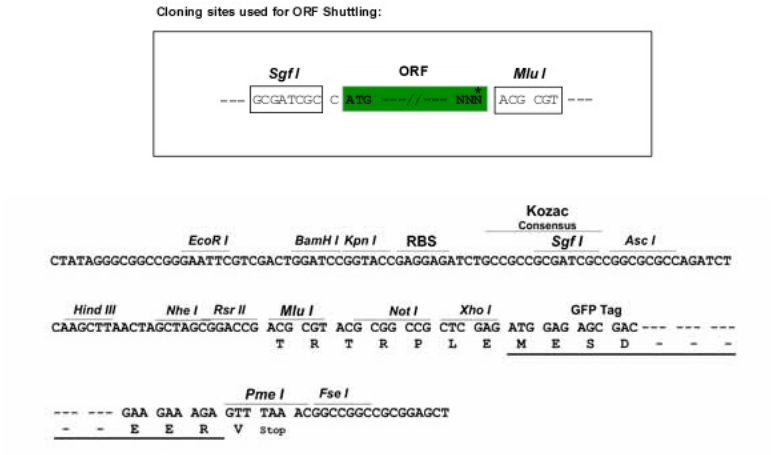
>RG228281 representing NM_001160175
Red=Cloning site Green=Tags(s)

MLLLLLHKEAALEPQGPAVGYNSLPVSDDHHVSGIQARKKQQSVFWIKTEDQPTFNLLRKGIMDIEAYLE
RIGYKKSRNKLDLETLTDILQHQIRAVPFENLNIHCGDAMDLGLEAIFDQVVRRNRGGWCLQVNHLLYWA
LTTIGFETTMLGGYVYSTPAKKYSTGMIHLLLQVTIDGRNYIVDAGFGRSYQMWQPLELISGKDQPQVPC
VFRLTEENGFWYLDQIRREQYIPNEEFLHSDLLEDSKYRKIYSFTLKPRTIEDFESMNTYLQTSPSSVFT
SKSFCSLQTPDGVHCLVGFTLTHRRFNYKDNTDLIEFKTLSEEEIEKVLKNIFNISLQRKLVPKHGDRFF
TI

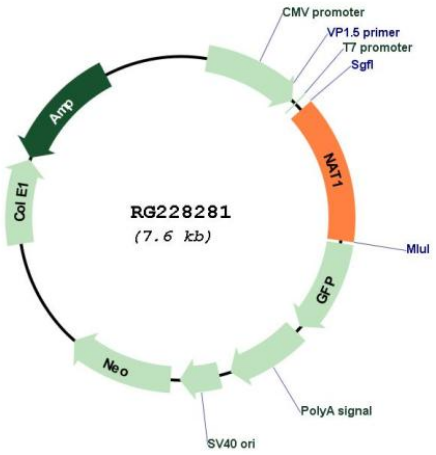
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001160175

ORF Size:	1056 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_001160175.4
RefSeq Size:	2083 bp
RefSeq ORF:	1059 bp
Locus ID:	9
Cytogenetics:	8p22
Protein Pathways:	Caffeine metabolism, Drug metabolism - other enzymes, Metabolic pathways
Gene Summary:	This gene is one of two arylamine N-acetyltransferase (NAT) genes in the human genome, and is orthologous to the mouse and rat Nat2 genes. The enzyme encoded by this gene catalyzes the transfer of an acetyl group from acetyl-CoA to various arylamine and hydrazine substrates. This enzyme helps metabolize drugs and other xenobiotics, and functions in folate catabolism. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2011]