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Product datasheet for RG228810

NAT1 (NM_001160172) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NAT1 (NM_001160172) 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:

>RG228810 representing NM_001160172
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGACATTGAAGCATATCTTGAAAGAATTGGCTATAAGAAGTCTAGGAACAAATTGGACTTGGAAACAT
TAACTGACATTCTTCAACACCAGATCCGAGCTGTTCCCTTTGAGAACCTTAACATCCATTGTGGGGATGC
CATGGACTTAGGCTTAGAGGCCATTTTTGATCAAGTTGTGAGAAGAAATCGGGGTGGATGGTGTCTCCAG
GTCAATCATCTTCTGTACTGGGCTCTGACCACTATTGGTTTTGAGACCACGATGTTGGGAGGGTATGTTT
ACAGCACTCCAGCCAAAAAATACAGCACTGGCATGATTCACCTTCTCCTGCAGGTGACCATTGATGGCAG
GAACTACATTGTCGATGCTGGGTTTGGACGCTCATACCAGATGTGGCAGCCTCTGGAGTTAATTTCTGGG
AAGGATCAGCCTCAGGTGCCTTGTGTCTTCCGTTTGACGGAAGAGAATGGATTCTGGTATCTAGACCAAA
TCAGAAGGGAACAGTACATTCCAAATGAAGAATTTCTTCATTCTGATCTCCTAGAAGACAGCAAATACCG
AAAAATCTACTCCTTTACTCTTAAGCCTCGAACAATTGAAGATTTTGAGTCTATGAATACATACCTGCAG
ACATCTCCATCATCTGTGTTTACTAGTAAATCATTTTGTTCCTTGCAGACCCCAGATGGGGTTCACTGTT
TGGTGGGCTTCACCCTCACCCATAGGAGATTCAATTATAAGGACAATACAGATCTAATAGAGTTCAAGAC
TCTGAGTGAGGAAGAAATAGAAAAAGTGCTGAAAAATATATTTAATATTTCCTTGCAGAGAAAGCTTGTG
CCCAAACATGGTGATAGATTTTTTACTATT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

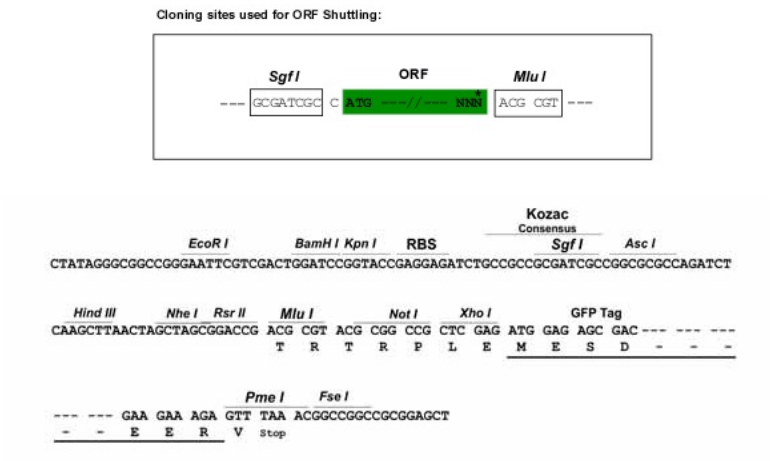
>RG228810 representing NM_001160172
Red=Cloning site Green=Tags(s)

MDIEAYLERIGYKKSRNKLDLETLTDILQHQIRAVPFENLNIHCGDAMDLGLEAIFDQVVRRNRGGWCLQ
VNHLLYWALTTIGFETTMLGGYVYSTPAKKYSTGMIHLLLQVTIDGRNYIVDAGFGRSYQMWQPLELISG
KDQPQVPCVFRLTEENGFWYLDQIRREQYIPNEEFLHSDLLEDSKYRKIYSFTLKPRTIEDFESMNTYLQ
TSPSSVFTSKSFCSLQTPDGVHCLVGFTLTHRRFNYKDNTDLIEFKTLSEEEIEKVLKNIFNISLQRKLV
PKHGDRFFTI

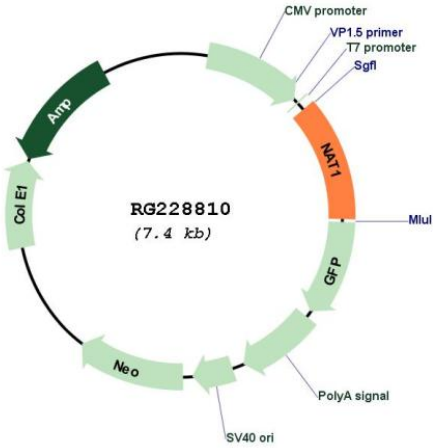
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001160172

ORF Size: 870 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_001160172.4
RefSeq Size:	2120 bp
RefSeq ORF:	873 bp
Locus ID:	9
UniProt ID:	P18440
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]