

## Product datasheet for **RG228282**

### **NAT1 (NM\_001160176) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** NAT1 (NM\_001160176) 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:** >RG228282 representing NM\_001160176  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGTTATTACTCTTACACAAGGAGGCAGCCCTCGAGCCACAGGGTCCAGCTGTTGGCTATAATAGCC  
TACCGTCTCTGATGATCACCATGTTTCTGGAATCAAGCCAGGAAGAAGCAGCAATCTGTCTTCTGGAT  
TAAACTGAAGATCAACCTACTTCACTTAAGAAAGGGGATCATGGACATTGAAGCATATCTTGAA  
AGAATTGGCTATAAGAAGTCTAGGAACAAATTGGACTTGGAAACATTAAGTACATTCTTCAACACCAGA  
TCCGAGCTGTTCCCTTTGAGAACCTAACATCCATTGTGGGGATGCCATGGACTTAGGCTTAGAGGCCAT  
TTTTGATCAAGTTGTGAGAAGAAATCGGGTGGATGGTGTCTCCAGGCAATCATCTTGTACTGGCT  
CTGACCACTATTGGTTTTGAGACCACGATGTTGGAGGGTATGTTTACAGCACTCCAGCCAAAAATACA  
GCACTGGCATGATTCACCTTCTCCTGCAGGTGACCATTGATGGCAGGAACATATTGTCGATGCTGGGTT  
TGGACGCTCATACCAGATGTGGCAGCCTCTGGAGTTAATTTCTGGGAAGGATCAGCCTCAGGTGCCTTGT  
GTCTTCCGTTTGACGGAAGAGAAATGGATTCTGGTATCTAGACCAATCAGAAGGGAACAGTACATTCCAA  
ATGAAGAATTTCTTCTGATCTCTAGAACAGCAATACCGAAAAATCTACTCCTTACTCTTAA  
GCCTCGAACAATTGAAGATTTTGGTCTATGAATACATACCTGCAGACATCTCCATCATCTGTGTTTACT  
AGTAAATCATTTTGTTCCTTGCAGACCCAGATGGGTTCACTGTTTGGTGGGTTCCACCTCACCATA  
GGAGATTCAATTATAAGGACAATACAGATCTAATAGAGTTCAAGACTCTGAGTGAGGAAGAAATAGAAAA  
AGTGCTGAAAAATATATTTAATATTTCTTGCAGAGAAAGCTTGTGCCAAACATGGTGATAGATTTTTT  
ACTATT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA



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**Protein Sequence:** >RG228282 representing NM\_001160176  
Red=Cloning site Green=Tags(s)

MLLLLLHKEAALEPQGPVAVGYNLSPVSDHHSVGIQARKKQQSVFWIKTEDQPTFNLLRKGIMDIEAYLE  
 RIGYKKS RNKLDLETLTDILQHQIRAVPFENLNIHCGDAMD LGLEAIFDQV VRRNRGGWCLQVNHLLYWA  
 LTTIGFETMLGGVYVSTPAKKYSTGMIHLLLQVTIDGRNYIVDAGFGRSYQMWPLELISGKDQPQVPC  
 VFRLTEENGFWYLDQIRREQYIPNEEF LHSDDLLED SKYRKIYSFTLKPRTIEDFESMNTYLQTS PSSVFT  
 SKSFCSLQTPDGVHCLVGF T LTHRRFNYKDN TDLIEFKT LSEEEIEKVLKNI FNISLQRKLV PKHGDRFF  
 TI

TRTRPLE - GFP Tag - V

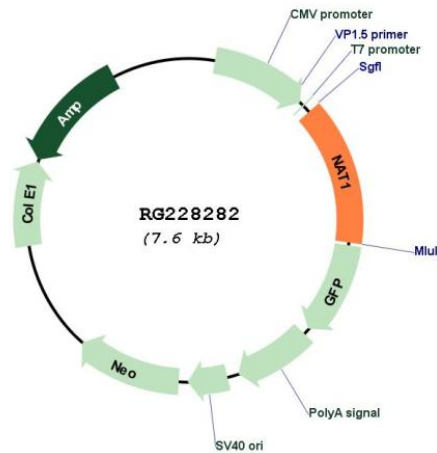
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:**

NM\_001160176

<b>ORF Size:</b>	1056 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001160176.4</a>
<b>RefSeq Size:</b>	1933 bp
<b>RefSeq ORF:</b>	1059 bp
<b>Locus ID:</b>	9
<b>Cytogenetics:</b>	8p22
<b>Protein Pathways:</b>	Caffeine metabolism, Drug metabolism - other enzymes, Metabolic pathways
<b>Gene Summary:</b>	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]