

## Product datasheet for RC228281

### NAT1 (NM\_001160175) Human Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | NAT1 (NM_001160175) Human Tagged ORF Clone                                     |
| Tag:                      | Myc-DDK  |
| Symbol:                   | NAT1   |
| Synonyms:                 | AAC1; MNAT; NAT-1; NATI  |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-Entry (PS100001)   |
| E. coli Selection:        | Kanamycin (25 ug/mL)   |
| ORF Nucleotide Sequence:  | >RC228281 representing NM_001160175<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGC**C

ATGCTGTTATTACTCTTACACAAGGAGGCAGCCCTCGAGCCACAGGGTCCAGCTGTTGGCTATAATAGCC  
TACCGGTCTCTGATGATCACCATGTTTCTGGAATCAAGCCAGGAAGAAGCAGCAATCTGTCTTCTGGAT  
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GCCTCGAACAATTGAAGATTTTGGTCTATGAATACATACCTGCAGACATCTCCATCATCTGTGTTTACT  
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AGTGCTGAAAAATATATTTAATATTTCTTGCAGAGAAAGCTTGTGCCAAACATGGTGATAGATTTTTT  
ACTATT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC228281 representing NM\_001160175  
Red=Cloning site Green=Tags(s)

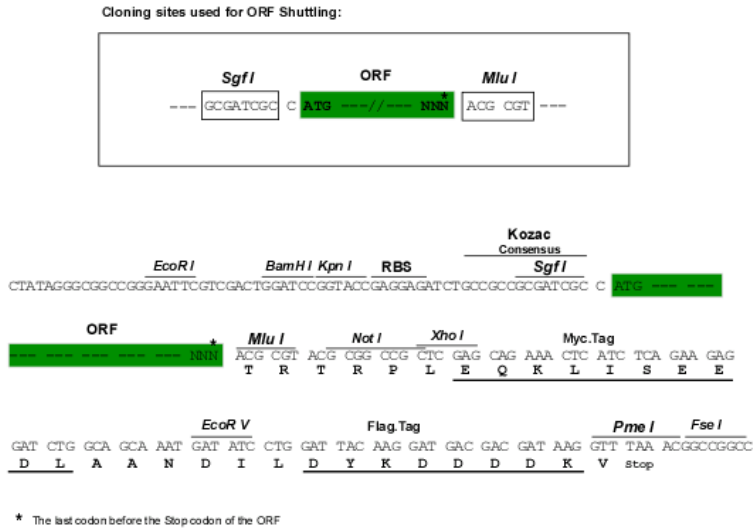
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 LTTIGFETMLGGVYVSTPAKKYSTGMIHLLLVQVIDGRNYIVDAGFGRSYQMWPLELISGKDQPQVPC  
 VFRLTEENGFWYLDQIRREQYIPNEEF LHSDDLLEDSKYRKIYSFTLKPRTIEDFESMNTYLQTS PSSVFT  
 SKSFCSLQTPDGVHCLVGF T LTHRRFNYKDNTDLIEFKTLSEEEIEKVLKNI FNISLQRKLV PKHGDRFF  
 TI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8054\\_d05.zip](https://cdn.origene.com/chromatograms/mk8054_d05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**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 ORF:** 1059 bp

**Locus ID:** 9

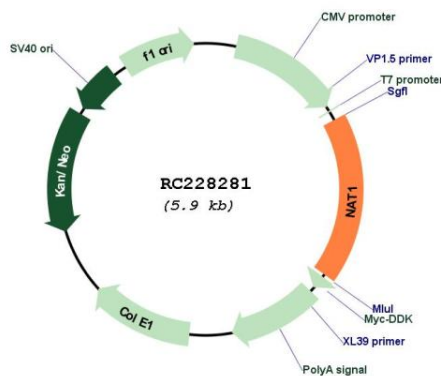
**Cytogenetics:** 8p22

**Protein Pathways:** Caffeine metabolism, Drug metabolism - other enzymes, Metabolic pathways

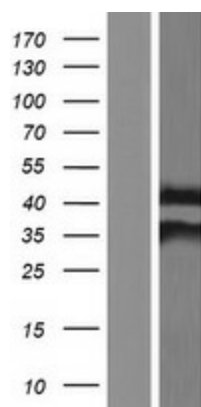
**MW:** 40.7 kDa

**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]

## Product images:



Circular map for RC228281



Western blot validation of overexpression lysate (Cat# [LY431309]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228281 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).