

Product datasheet for **RC22811**

NAT1 (NM_001160173) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NAT1 (NM_001160173) 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:	>RC22811 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACATTGAAGCATATCTTGAAAGAATTGGCTATAAGAAGTCTAGGAACAAATTGGACTTGGAAACAT
TAACTGACATTCTTCAACACCAGATCCGAGCTGTTCCCTTTGAGAACCTAACATCCATTGTGGGGATGC
CATGGACTTAGGCTTAGAGGCCATTTTGGATCAAGTTGTGAGAAGAAATCGGGTGGATGGTGTCTCCAG
GTCAATCATCTTCTGTACTGGGCTCTGACCACTATTGGTTTTGAGACCACGATGTTGGGAGGGTATGTTT
ACAGCACTCCAGCCAAAAATACAGCACTGGCATGATTACCTTCTCCTGCAGGTGACCATTGATGGCAG
GAACTACATTGTCGATGCTGGGTTTGGACGCTCATACCAGATGTGGCAGCCTCTGGAGTTAATTTCTGGG
AAGGATCAGCCTCAGGTGCCTTGTGCTTCCGTTTGACGGAAGAGAATGGATTCTGGTATCTAGACCAAA
TCAGAAGGGAACAGTACATTCCAATGAAGAATTTCTTCACTGATCTCCTAGAAGACAGCAAATACCG
AAAAATCTACTCCTTACTCTTAAGCCTCGAACAATTGAAGATTTTGGTCTATGAATACATACCTGCAG
ACATCTCCATCATCTGTGTTTACTAGTAAATCATTTTGTCTTGCAGACCCAGATGGGGTTCACTGTT
TGGTGGGCTTCAACCTACCCATAGGAGATTCAATTATAAGGACAATACAGATCTAATAGAGTTCAAGAC
TCTGAGTGAGGAAGAAATAGAAAAAGTCTGAAAAATATATTTAATATTTCTTGCAGAGAAAGCTTGTG
CCCAAACATGGTGATAGATTTTTACTATT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >RC228811 protein sequence
Red=Cloning site Green=Tags(s)

MDIEAYLERIGYKKS RNKLDLETLDILQHQIRAVPFENLNIHCGDAMD LGLEAIFDQVRRNRGGWCLQ
 VNHLLYWALTTIGFETTMLGGYVYSTPAKKYSTGMIHLLQVTIDGRNYIVDAGFGRSYQMWQPLELISG
 KDQPQVPCVFRLTEENGFWYLDQIRREQYIPNEEFLHSDLLLEDSKYRKIYSFTLKPRTIEDFESMNTYLQ
 TSPSSVFTSKSFCSLQTPDGVHCLVGF TLTHRRFNYKDNTDLIEFKTLSEEEIEKVLKNI FNISLQRKLV
 PKHGDRFFTI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8075_f10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001160173

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_001160173.3](#)

RefSeq Size: 1971 bp

RefSeq ORF: 873 bp

Locus ID: 9

UniProt ID: [P18440](#)

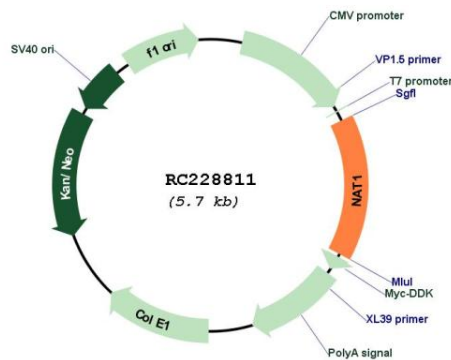
Cytogenetics: 8p22

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

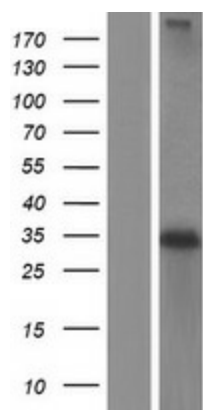
MW: 33.9 kDa

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 RC228811



Western blot validation of overexpression lysate (Cat# [LY431840]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC228812] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).