

## Product datasheet for RC202201

### VAT1 (NM\_006373) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	VAT1 (NM_006373) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	VAT1
Synonyms:	VATI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202201 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCGACGAGAGAGAGGTAGCCGAGGCAGCGACCGGGGAAGACGCCTCTTCGCCGCTCCGAAAACCG  
AGGCAGCGAGCGACCCCCAGCATCCCGCGGCTCCGAAGGGCCGCCGCCGCCGCTCGCCGCACT  
GCTGCGCTGCCTAGTGCTCACCGCTTTGGAGGCTACGACAAGGTGAAGTGCAGAGCCGGCCGCGCAGCG  
CCCCCGGCCCTGGGCCGCGCAGCTGACGCTGCGTCTGCGGGCTCGGGCTCACTTCGAGACCTCA  
TGGCTAGGCAGGGGTGTACGACCGTCTCCCGCTCTGCCTGTCACTCCGGCATGGAGGGCGGGGTGT  
TGTGATCGCAGTGGGCGAGGGAGTCAGCGACCGCAAGGCAGGAGACCGGGTGTGGTGTGAACCGGTCA  
GGGATGTGGCAGGAAGAGGTGACTGTGCCCTCGGTCCAGACCTTCTGATTCTGAGGCCATGACCTTTG  
AGGAAGCTGCTGCCTTGCTCGTCAATTACATTACAGCCTACATGGTCTCTTTGACTTCGGCAACCTACA  
GCCTGGCCACAGCGTCTTGGTACACATGGCTGCAGGGGTGTGGGTATGGCTGCCGTGCAGCTGTGCCGT  
ACAGTGGAGAATGTGACAGTGTTCGGAACGGCCTCGGCCAGCAAGCACGAGGCACTGAAGGAGAATGGGG  
TCACACATCCCATCGACTATCACAGGACTGACTACGTGGATGAGATCAAGAAGATTTCCCCTAAAGGAGT  
GGCATTGTGATGACCCCTCTGGGTGGTCAAGTACTGCCAAGGGCTACAACCTCCTGAAACCCATGGGC  
AAAGTCGTACCTATGGAATGGCAACCTGCTGACGGGCCAAACGGAACCTGATGGCCCTGGCCCGGA  
CATGGTGGAAATCAGTTCAGCGTGACAGCTCTGCAGCTGCTGCAGGCCAACCGGGCTGTGTGTGGCTTCCA  
CCTGGGCTACCTGGATGGTGGGTGGAGCTGGTCAAGTGGTGTGGTGGCCGCTCCTGGCTCTGTACAAC  
CAGGGCCACATCAAGCCCCACATTGACTCAGTCTGGCCCTTCGAGAAGGTGGCTGATGCCATGAAACAGA  
TGCAGGAGAAGAAGAATGTGGCAAGGTCTCCTGTTCCAGGGCCAGAGAAGGAGAAC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
TGGATTACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC202201 protein sequence  
Red=Cloning site Green=Tags(s)

MSDEREVAEAAATGEDASSPPPKTEAASDPQHPAASEGAAAAASPPLLRLCLVLTGFGGYDKVKLQSRPAA  
 PPAPGPGQLTLRLRACGLNFADLMARQGLYDRLPPLPVTPTGMEGAGVVIIVGEGVSDRKAGDRVMVLNRS  
 GMWQEEVTPSVQTFLIPEAMTFEEAAALLVNYITAYMVLDFDGNLQPGHSVLVHMAAGGVGMAAVQLCR  
 TVENVTVFGTASASKHEALKENGVTHPIDYHTTDYVDEIKKISPKGVDI VMDPLGGSDTAKGYNLLKPMG  
 KVVITYGMANLLTGPKRNLALARTWNNQFSVTALQLLQANRAVCGFHLGYLDGEVELVSGVVARLLALYN  
 QGHIKPHIDSVWPFKQVADAMKQMQEKKNVGKVLVLPGEKEN

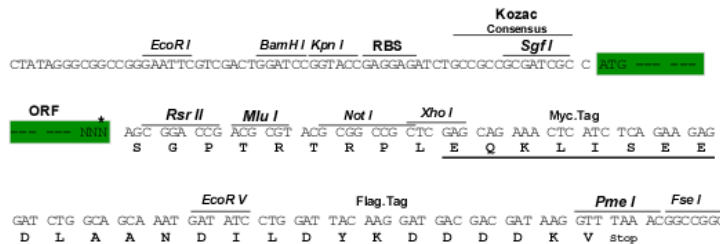
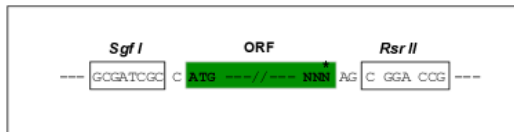
SGPTRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6186\\_d08.zip](https://cdn.origene.com/chromatograms/mk6186_d08.zip)

**Restriction Sites:** SgfI-RsrII

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_006373

**ORF Size:** 1179 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\\_006373.4](#)

**RefSeq Size:** 2758 bp

**RefSeq ORF:** 1182 bp

**Locus ID:** 10493

**UniProt ID:** [Q99536](#)

**Cytogenetics:** 17q21.31

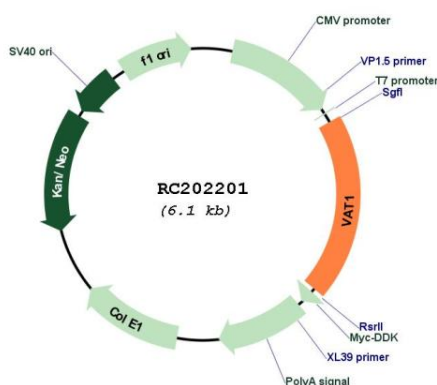
**Domains:** ADH\_zinc\_N

**Protein Families:** Druggable Genome

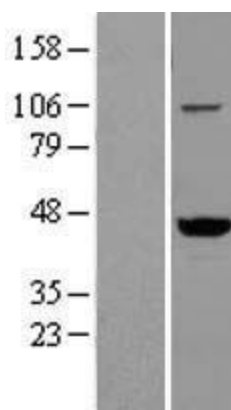
**MW:** 41.9 kDa

**Gene Summary:** Synaptic vesicles are responsible for regulating the storage and release of neurotransmitters in the nerve terminal. The protein encoded by this gene is an abundant integral membrane protein of cholinergic synaptic vesicles and is thought to be involved in vesicular transport. It belongs to the quinone oxidoreductase subfamily of zinc-containing alcohol dehydrogenase proteins. [provided by RefSeq, Jul 2008]

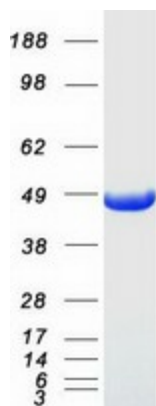
## Product images:



Circular map for RC202201



Western blot validation of overexpression lysate (Cat# [LY401915]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202201 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified VAT1 protein (Cat# [TP302201]). The protein was produced from HEK293T cells transfected with VAT1 cDNA clone (Cat# RC202201) using MegaTran 2.0 (Cat# [TT210002]).