

Product datasheet for **RC227815**

VMAT1 (SLC18A1) (NM_001142324) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	VMAT1 (SLC18A1) (NM_001142324) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC18A1
Synonyms:	CGAT; VAT1; VMAT1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC227815 representing NM_001142324
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTCCGGCCATTCTGGATGCTCCCCAGCGTTGCTGAAGGAGGGAGAGCGTCCCGCAGCTGGTGC
 TGGTGGTGGTATTCGTCGCTTTGCTCCTGGACAACATGCTGTTTACTGTGGTGGTCCAATTGTGCCAC
 CTTCTATATGACATGGAGTTCAAAGAAGTCAACTCTTCTCTGCACCTCGGCCATGCCGGAAGTCCCCA
 CATGCCCTCGCTCTCTGCCTTTCCACCATCTTCTCCTTTCAACAACAACACCGTGGCTGTTGAAG
 AAAGCGTACCTAGTGGAAATAGCATGGATGAATGACACTGCCAGCACCATCCCACCTCCAGCCACTGAAGC
 CATCTCAGCTCATAAAAACAACCTGCTTGAAGGCACAGTTTCTGGAGGAAGAGACTACCCGGTCCGG
 GTTCTGTTGCTCAAAGGCTGTGATGCAACTTCTGGTCAACCCATTCTGGGCCCTCTACCAACAGGA
 TTGGATATCATATCCCCATGTTTGTGGCTTTGTTATCATGTTTCTCCACAGTTATGTTTCTTTTC
 TGGGACCTATACTCTACTCTTTGTGGCCGAACCTTCAAGGCATTGGATCTTCATTTTCATCTGTTGCA
 GGTCTTGGAAATGCTGGCCAGTGTCTACACTGATGACCATGAGAGAGGACGAGCCATGGGAACTGCTCTGG
 GGGCCTGGCCTTGGGGTTGCTGGTGGGAGCTCCCTTTGGAAGTGAATGTACGAGTTTGTGGGAAGTC
 TGCACCCTTCTCATCTGGCCTTCTGGCACTACTGGATGGAGCACTCCAGCTTGCATCTACAGCCT
 TCCAAAGTCTCTCTGAGAGTGCCAAGGGGACTCCCTCTTTATGCTTCTCAAAGACCCTTACATCTGG
 TGGCTGCAGGTCTAGCTTTCTGGCTGCCAGTGTGCTCCTACCTCATTGGCACCACTCTTTGGTGTGT
 GGCCAACAAGATGGGTGGTGGCTGTGTCCCTAATCGGGATGCTGGTAGTAGGTACCAGCTTGTCTGT
 GTTCTCTGGCTCACAATATTTTGGTCTCATTGGCCCAATGCAGGGCTTGGCCTTGCATAGGGATGG
 TGGATTCTTCTATGATGCCATCATGGGCACCTGGTGGATCTACGCCACACCTCGGTGTATGGAGTGT
 CTAGCCATCGCTGATGGCTTTTGGCATGGCTTTGCTATAGGTCCATCCACCGGTGGTGCATTGTA
 AAGGCCATCGTTTTCCCTGGCTCATGGTCACTGGGTCATCAACATCGTCTATGCTCCACTCTGCT
 ACTACCTGCGGAGCCCCCGGCAAAGGAAGAGAAGCTTGTATTCTGAGTCAGGACTGCCCCATGGAGAC
 CCGGATGTATGCAACCCAGAAGCCACGAAGGAATTTCTCTGGGGGAGGACAGTGATGAGGAGCCTGAC
 CATGAGGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC227815 representing NM_001142324
 Red=Cloning site Green=Tags(s)

MLRPILDAPQRLLEGRASRQLVLVVVFVALLLDNMLFTVVVPIVPTFLYDMEFKEVNSSLHLGHAGSSP
 HALASPAFSTIFSFNNNTVAVEESVPSGIAWMNDTASTIPPPATEAISAHKNCLQGTGFLEEETTRVG
 VLFASKAVMQLLVNPFVGPLTNRIGYHIPMFAGFVIMFLSTVMFAFSGTYTLLFVARTLQIGSSFSSVA
 GLGMLASVYTDHERGRAMGTALGGLALGLLVGAPFGSVMYEFVGSAPFLILAFLLLDGALQLCILQP
 SKVSPESAKGTPLFMLLKDPYILVAAGLAFPLPASVSYLIGTNLFGVLANKMGRWLCSLIGMLVVGTSLLC
 VPLAHNIFGLIGPNAGLGLAIGMVDSSMMPIMGHVLDLRHTSVYGSVYAIADVAFCMGFAIGPSTGGAIY
 KAIGFPWLMVITGVINIVYAPLCYRLRSPPAKEEKLAAILSQDCPMETRMATQKPTKEFPLGEDSDEEPP
 HEE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

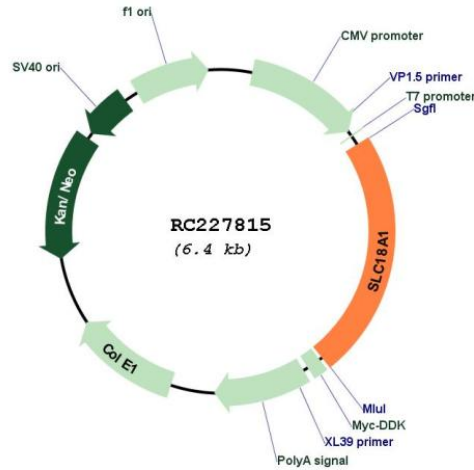
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN:	NM_001142324
ORF Size:	1479 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_001142324.1](#), [NP_001135796.1](#)

RefSeq ORF: 1482 bp

Locus ID: 6570

UniProt ID: [P54219](#)

Cytogenetics: 8p21.3

Protein Families: Transmembrane

Protein Pathways: Parkinson's disease

MW: 52.5 kDa

Gene Summary: The vesicular monoamine transporter acts to accumulate cytosolic monoamines into vesicles, using the proton gradient maintained across the vesicular membrane. Its proper function is essential to the correct activity of the monoaminergic systems that have been implicated in several human neuropsychiatric disorders. The transporter is a site of action of important drugs, including reserpine and tetrabenazine (Peter et al., 1993 [PubMed 7905859]). See also SLC18A2 (MIM 193001).[supplied by OMIM, Mar 2008]