

Product datasheet for **RC221148**

VMAT1 (SLC18A1) (NM_003053) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	VMAT1 (SLC18A1) (NM_003053) 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:

>RC221148 representing NM_003053
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTCCGGACCATTCTGGATGCTCCCCAGCGTTGCTGAAGGAGGGGAGAGCGTCCCGCAGCTGGTGC
 TGGTGGTGGTATTCGTCGCTTTGCTCCTGGACAACATGCTGTTTACTGTGGTGGTCCAATTGTGCCAC
 CTTCTATATGACATGGAGTTCAAAGAAGTCAACTCTTCTCTGCACCTCGGCCATGCCGGAAGTCCCCA
 CATGCCCTCGCCTCTCTGCCTTTCCACCATCTTCTCCTTCTCAACAACAACACCGTGGCTGTTGAAG
 AAAGCGTACCTAGTGGAAATAGCATGGATGAATGACACTGCCAGCACCATCCCACCTCCAGCCACTGAAGC
 CATCTCAGCTCATAAAAACAACTGCTTGAAGGCACAGTTTCTTGGAGGAAGAGATTACCCGGTCCGG
 GTTCTGTTTCTCAAAGGCTGTGATGCAACTTCTGGTCAACCCATTCTGGGCCCTCTACCAACAGGA
 TTGGATATCATATCCCCATGTTTGTGGCTTTGTTATCATGTTTCTCCACAGTTATGTTTCTTTTC
 TGGACCTATACTCTACTCTTTGTGGCCGAACCTTCAAGGCATTGGATCTTCATTTTCATCTGTTGCA
 GGTCTTGGAAATGCTGGCCAGTGTCTACACTGATGACCATGAGAGAGGACGAGCCATGGGAACTGCTCTGG
 GGGCCTGGCCTTGGGGTTGCTGGTGGGAGCTCCCTTTGGAAGTGAATGTACGAGTTTGTGGGAAGTC
 TGCACCCTTCTCATCTGGCCTTCTGGCACTACTGGATGGAGCACTCCAGCTTTCATCTACAGCCT
 TCCAAAGTCTCTCCTGAGAGTGCCAAGGGGACTCCCTCTTTATGCTTCTCAAAGACCCTTACATCTGG
 TGGCTGCAGGGTCCATCTGCTTTGCCAACATGGGGTGGCCATCTGGAGCCACACTGCCCATCTGGAT
 GATGCAGACCATGTGCTCCCCAAGTGGCAGCTGGGTCTAGCTTCTTGCCTGCCAGTGTGCTACCTC
 ATTGGCACCAACCTCTTTGGTGTGTTGGCCAACAAGATGGTCCGTGGCTGTGTTCCCTAATCGGGATGC
 TGGTAGTAGTACCAGCTTGTCTGTCTCTCTGGCTCACAATATTTTTGGTCTATTGGCCCCAATGC
 AGGGCTTGGCCTTGCCATAGGCATGGTGATTCTTCTATGATGCCCATCATGGGGCACCTGGTGGATCTA
 CGCCACACCTCGGTGTATGGGAGTGTCTACGCCATCGCTGATGTGGCTTTTTGCATGGGCTTTGCTATAG
 GTCATCCACCGGTGGTCCATTGTAAGGCCATCGGTTTTCCCTGGCTCATGGTCATCACTGGGGTCAT
 CAACATCGTCTATGCTCCACTCTGCTACTACCTGCGGAGCCCCCGCAAAGGAAGAGAAGCTTGTCTATT
 CTGAGTCAGGACTGCCCATGGAGACCCGGATGTATGCAACCCAGAAGCCACGAAGGAATTTCTCTGG
 GGGAGGACAGTGTGAGGAGCCTGACCATGAGGAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221148 representing NM_003053
 Red=Cloning site Green=Tags(s)

MLRTILDAPQRLLEGRASRQLVLVVVFVALLLDNMLFTVVVPIVPTFLYDMEFKEVNSSLHLGHAGSSP
 HALASPAFSTIFSFNNTVAVEESVPSGIAWMNDTASTIPPPATEAISAHKNCLQGTGFLLEEITRVG
 VLFASKAVMQLLVNPFVGPLTNRIGYHIPMFAGFVIMFLSTVMFAFSGTYTLLFVARTLQIGSSFSVA
 GLGMLASVYTDHERGRAMGTALGGLALGLLVGAPFGSVMYEFVGSAPFLILAFLLDGLALQCLILQP
 SKVSPESAKGTPLFMLLKDPYILVAAGSICFANMGVAILEPTLPIMMMQTMCSPKWQLGLAFLPASVSYL
 IGTNLFVLANKMRWLCSLIGMLVVGTSLLCVPLAHNIFGLIGPNAGLGLAIGMVDSSMMPIMGHLVDL
 RHTSVYGSVYAIADVAFCMGFAIGPSTGGAIVKAIGFPWLMVITGVINIVYAPLCYILRSPPAKEEKLA
 LSQDCPMETRMATQKPTKEFPLGEDSDEEPDHEE

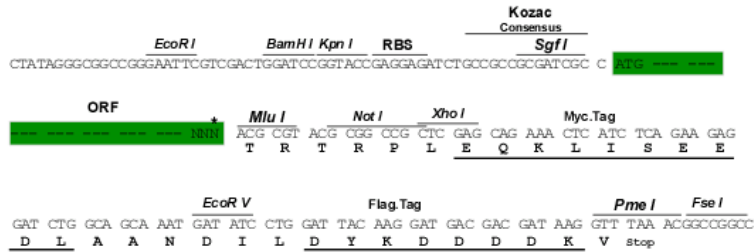
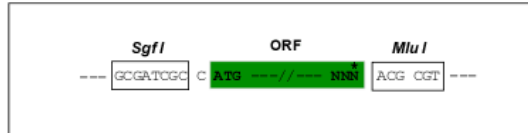
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

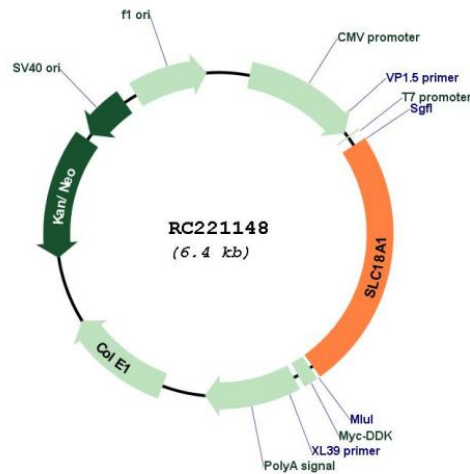
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:


ACCN:	NM_003053
ORF Size:	1575 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:	<ol style="list-style-type: none">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_003053.4
RefSeq Size:	2770 bp
RefSeq ORF:	1578 bp
Locus ID:	6570
UniProt ID:	P54219
Cytogenetics:	8p21.3
Protein Families:	Transmembrane
Protein Pathways:	Parkinson's disease
MW:	56.3 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]