

## Product datasheet for **RG227696**

### VMAT1 (SLC18A1) (NM\_001135691) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	VMAT1 (SLC18A1) (NM_001135691) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC18A1
Synonyms:	CGAT; VAT1; VMAT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG227696 representing NM\_001135691  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCTCCGGACCATTCTGGATGCTCCCCAGCGTTGCTGAAGGAGGGGAGAGCGTCCCGCAGCTGGTGC  
 TGGTGGTGGTATTCGTCGCTTTGCTCCTGGACAACATGCTGTTTACTGTGGTGGTCCAATTGTGCCAC  
 CTTCTATATGACATGGAGTTCAAAGAAGTCAACTCTTCTCTGCACCTCGGCCATGCCGGAAGTCCCCA  
 CATGCCCTCGCCTCTCTGCCTTTCCACCATCTTCTCCTTCTCAACAACAACACCGTGGCTGTTGAAG  
 AAAGCGTACCTAGTGGAAAGCATGGATGAATGACACTGCCAGCACCATCCACCTCCAGCCACTGAAGC  
 CATCTCAGCTCATAAAAACAACCTGCTTGAAGGCACAGGTTTCTGGAGGAAGAGATTACCCGGTCCGG  
 GTTCTGTTTCTCAAAGGCTGTGATGCAACTTCTGGTCAACCCATTCTGGGCCCTCTCACCAACAGGA  
 TTGGATATCATATCCCCATGTTTGTGGCTTTGTTATCATGTTTCTCCACAGTTATGTTTGTCTTTTC  
 TGGGACCTATACTCTACTCTTTGTGGCCGAACCTTCAAGGCATTGGATCTTCATTTTCATCTGTTGCA  
 GGTCTTGGAAATGCTGGCCAGTGTCTACACTGATGACCATGAGAGAGGACGAGCCATGGGAACTGCTCTGG  
 GGGCCTGGCCTTGGGGTTGCTGGTGGGAGCTCCCTTTGGAAGTGAATGTACGAGTTTGTGGGAAGTC  
 TGCACCCTTCTCATCTGGCCTTCTGGCACTACTGGATGGAGCACTCCAGCTTGCATCCTACAGCCT  
 TCCAAAGTCTCTCCTGAGAGTGCCAAGGGGACTCCCTCTTTATGCTTCTCAAAGACCCTTACATCCTGG  
 TGGCTGCAGGGTCCATCTGCTTTGCCAACATGGGGTGGCCATCTGGAGCCACACTGCCCATCTGGAT  
 GATGCAGACCATGTGCTCCCCAAGTGGCAGCTGGGTCTAGCTTCTTGCCTGCCAGTGTCTCTACCTC  
 ATTTGGCACCAACCTCTTTGGTGTGTTGGCCAACAAGATGGTCCGTGGCTGTGTTCCCTAATCGGGATGC  
 TGGTAGTAGTACCAGCTTGTCTGTCTCTCTGGCTACAATATTTTTGGTCTATTGGCCCCAATGC  
 AGGGCTTGGCCTTGCCATAGGCATGGTGGATTCTTCTATGATGCCCATCATGGGGCACCTGGTGGATCTA  
 CGCCACACCTCGGTGTATGGGAGTGTCTACGCCATCGCTGATGTGGCTTTTTGCATGGGCTTTGCTATAG  
 GTCCATCCACCGGTGGTCCATTGTAAGGCCATCGGTTTTCCCTGGCTCATGGTCATCACTGGGTCAT  
 CAACATCGTCTATGCTCCACTCTGCTACTCTGCGGAGCCCCCGCAAAGGAAGAGAAGCTTGTCTATT  
 CTGAGTCAGGACTGCCCATGGAGACCCGGATGTATGCAACCCAGAAGCCACGAAGGAATTTCTCTGG  
 GGGAGGACAGTGTGAGGAGCCTGACCATGAGGAG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG227696 representing NM\_001135691  
 Red=Cloning site Green=Tags(s)

MLRTILDAPQRLLEGRASRQLVLVVVFVALLLDNMLFTVVVPIVPTFLYDMEFKEVNSSLHLHGAGSSP  
 HALASPAFSTIFSFNNNTVAVEESVPSGIAWMNDTASTIPPPATEAISAHKNNCLQGTGFLEEEITRVG  
 VLFASKAVMQLLVNPFVGPLTNRIGYHIPMAGFVIMFLSTVMFAFSGTYLLFVARTLQIGSSFSVA  
 GLGMLASVYTDHERGRAMGTALGGLALGLLVGAPFGSMYEFVSKSAPFLILAFALLDGLALQCLIQP  
 SKVSPESAKGTPLFMLLKDPYILVAAGSICFANMGVAILEPTLPIMMMQTMCSPKWQLGLAFLPASVSYL  
 IGTNLFVLANKMGRWLSLIGMLVVGTSLLCVPLAHNIFGLIGPNAGLGLAIGMVDSSMMPIMGHVLDL  
 RHTSVYGSVYAIADVAFCMGFAIGPSTGGAIKAIIGFPWLMVITGVINIVYAPLCYYLRSPPAKEEKLA  
 LSQDCPMETRMATQKPTKEFPLGEDSDEEPDHEE

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

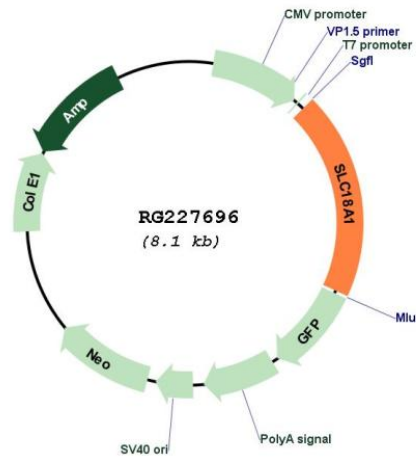
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



<b>ACCN:</b>	NM_001135691
<b>ORF Size:</b>	1575 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001135691.2</a> , <a href="#">NP_001129163.1</a>
<b>RefSeq Size:</b>	2974 bp
<b>RefSeq ORF:</b>	1578 bp
<b>Locus ID:</b>	6570
<b>UniProt ID:</b>	<a href="#">P54219</a>
<b>Cytogenetics:</b>	8p21.3
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Parkinson's disease
<b>Gene Summary:</b>	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]