

Product datasheet for **RG209230**

VGLuT1 (SLC17A7) (NM_020309) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	VGLuT1 (SLC17A7) (NM_020309) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC17A7
Synonyms:	BNPI; VGLUT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG209230 representing NM_020309
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGTTCGCCAGGAGGAGTTTCGGAAGCTAGCGGGTCGTGCTCTCGGAAGCTGCACCGCCTTCTGG
 AGAAGCGGCAGGAAGGCCGCGGAGACGCTGGAGCTGAGTGCAGGATGGGCGCCCGGTGACCACGCAGACCCG
 GGACCCGCCGGTGGTGGACTGCACCTGCTTCGGCCTCCCTCGCCGCTACATTATCGCCATCATGAGTGGT
 CTGGGCTTCTGCATCAGCTTTGGCATCCGCTGCAACCTGGGCGTGGCCATCGTCTCCATGGTCAATAACA
 GCACGACCCACCGCGGGGCCACGTGGTGGTGCAGAAAGCCAGTTCAGCTGGGATCCAGAGACTGTCGG
 CCTCATAACCGGCTCCTTTTTCTGGGGTACATTGCTCACTCAGATTCCAGGAGGATTTATCTGTCAAAAA
 TTTGCAGCCAACAGAGTTTTCGGCTTTGCTATTGTGGCAACATCCACTCTAAACATGCTGATCCCCTCAG
 CTGCCCGCTCCACTATGGCTGTGTCTTTCGTGAGGATCCTGCAGGGGTTGGTAGAGGGGTCACATA
 CCCCCTGCCATGGGATCTGGAGCAAAATGGGCCCCACCCTTAGAACGGAGTCGCTGGCGACGACAGCC
 TTTTGTGGTTCTATGCTGGGGCGGTGGTCGCGATGCCCTCGCCGGGGTCTTGTGCACTACTCAGGAT
 GGAGCTCTGTTTTCTACGTCTACGGCAGCTTCGGGATCTTCTGGTACCTGTTCTGGCTGCTCGTCTCCTA
 CGAGTCCCCCGCCTGCACCCAGCATCTCGGAGGAGGAGCGCAAGTACATCGAGGACGCCATCGGAGAG
 AGCGCGAAACTCATGAACCCCTCACGAAGTTTAGCACTCCCTGGCGGCGCTTCTTACGTCTATGCCAG
 TCTATGCCATCATCGTGGCAACTTCTGCCGACGTGGACGTTCTACCTGCTGCTCATCTCCAGCCCGC
 CTACTTCGAAGAAGTGTTCGGCTTCGAGATCAGCAAGTAGGCCTGGTGTCCGCGCTGCCCCACCTGGTC
 ATGACCATCATCGTCCCCATCGGCGCCAGATCGCGGACTTCTCGGAGCCGCCGATCATGTCCACCA
 CCAACGTGCGCAAGTTGATGAACCTGCGGAGGCTTCGGCATGGAAGCCACGCTGCTTGGTGGTCCGCTA
 CTGCACTCCAAGGGCGTGGCCATCTCCTTCTGGTCTAGCCGTGGGCTTCAGCGGCTTCGCCATCTCT
 GGGTTCAACGTGAACACCTGGACATAGCCCCGCGCTACGCCAGCATCCTCATGGGCATCTCCAACGGCG
 TGGGCACACTGTCGGGCATGGTGTGCCCATCATCGTGGGGGCCATGACTAAGCACAAGACTCGGGAGGA
 GTGGCAGTACGTGTTCTAATTGCCTCCCTGGTGCATATGGAGGTGTCATTTCTACGGGGTCTTTGCT
 TCTGGAGAGAAGCAGCCGTGGGCAGAGCCTGAGGAGATGAGCGAGGAGAAGTGTGGCTTCGTTGGCCATG
 ACCAGCTGGCTGGCAGTACGACAGCGAAATGGAGGATGAGGCTGAGCCCCGGGGGACCCCTGCACC
 CCCGCCCTCATGGGGCCACACAGCACATTTAGCCCCCAGGCCCCACCCCTGTCCGGGACTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG209230 representing NM_020309
 Red=Cloning site Green=Tags(s)

MEFRQEEFRKLAGRALGKLRHLLLEKRQEGAETLELSADGRPVTTQTRDPPVVDCTCFGLPRRYIIAIMSG
 LGFCISFGIRCNLGVAIVSMVNSTTHRGGHVVVQKAQFSDPETVGLIHGSFFWGYIVTQIPGGFICQK
 FAANRVGFIVATSTLNLIPSAARVHYGCVIFVRILQGLVEGVTPACHGIWSKWAPPLERSRLATTA
 FCGSYAGAVVAMPLAGVLVQYSGWSSVFVYVGSFGIFWYLFWLLVSYESPALHPSISEERKYIEDAIGE
 SAKLMNPLTKFSTPWRFFTSMPVYAIIVANFCRSWTFYLLLSIQPAYFEEVFGFEISKVGLVLSALPHLV
 MTIIVPIGGQIADFLRSRRIMSTTNVRKLMNCGGFGMEATLLL VVGYSHSGKVAISFLVLAVGFSGFAIS
 GFNVNHLDIAPRYASILMGI SNGVGTLSGMVCP IIVGAMTKHKTREEWQYVFLIASLVHYGGVIFYGVFA
 SGEKQPWAEPEEMSEKCGFVGHDLQLAGSDDSEMEDEAEPPGAPPAPPPSYGATHSTFQPPRPPPPVRDY

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

ACCN:	NM_020309
ORF Size:	1680 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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_020309.4
RefSeq Size:	2993 bp
RefSeq ORF:	1683 bp
Locus ID:	57030
UniProt ID:	Q9P2U7
Cytogenetics:	19q13.33
Domains:	sugar_tr
Protein Families:	Transmembrane

Gene Summary:

The protein encoded by this gene is a vesicle-bound, sodium-dependent phosphate transporter that is specifically expressed in the neuron-rich regions of the brain. It is preferentially associated with the membranes of synaptic vesicles and functions in glutamate transport. The protein shares 82% identity with the differentiation-associated Na-dependent inorganic phosphate cotransporter and they appear to form a distinct class within the Na⁺/Pi cotransporter family. [provided by RefSeq, Jul 2008]