

## Product datasheet for **RC209230**

### **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:	Myc-DDK
Symbol:	VGluT1
Synonyms:	BNPI; VGLUT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC209230 representing NM\_020309  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGTTCGCCAGGAGGAGTTTCGGAAGCTAGCGGGTCGTGCTCTCGGAAGCTGCACCGCCTTCTGG  
 AGAAGCGGCAGGAAGGCCGCGGAGACGCTGGAGCTGAGTGCGGATGGGCGCCCGGTGACCACGCAGACCCG  
 GGACCCGCCGGTGGTGGACTGCACCTGCTTCGGCCTCCCTCGCCGCTACATTATCGCCATCATGAGTGGT  
 CTGGGCTTCTGCATCAGCTTTGGCATCCGCTGCAACCTGGGCGTGGCCATCGTCTCCATGGTCAATAACA  
 GCACGACCCACCGGGGCCACGTGGTGGTGCAGAAAGCCAGTTCAGCTGGGATCCAGAGACTGTCGG  
 CCTCATACACGGCTCCTTTTTCTGGGGTACATTGTCACTCAGATTCCAGGAGGATTTATCTGTCAAAAA  
 TTTGCAGCCAACAGAGTTTTCGGCTTTGCTATTGTGGCAACATCCACTCTAAACATGCTGATCCCCTCAG  
 CTGCCCGCTCCACTATGGCTGTGTCTTTCGTGAGGATCCTGCAGGGGTTGGTAGAGGGGGTTCACATA  
 CCCCCTGCCATGGGATCTGGAGCAAAATGGGCCCCACCCTTAGAACGGAGTCGCCTGGCGACGACAGCC  
 TTTTGTGGTTCTATGCTGGGGCGTGGTGCAGATGCCCTCGCCGGGGTCTTGTGCACTACTCAGGAT  
 GGAGCTCTGTTTTCTACGTCTACGGCAGCTTCGGGATCTTCTGGTACCTGTTCTGGCTGCTCGTCTCCTA  
 CGAGTCCCCCGCCTGCACCCAGCATCTCGGAGGAGGAGCGCAAGTACATCGAGGACGCCATCGGAGAG  
 AGCGCGAAACTCATGAACCCCTCACGAAGTTTAGCACTCCCTGGCGGCGCTTCTTACGTCTATGCCAG  
 TCTATGCCATCATCGTGGCAACTTCTGCCGACGTGGACGTTCTACCTGCTGCTCATCTCCAGCCCGC  
 CTACTTCGAAGAAGTGTTCGGCTTCGAGATCAGCAAGTAGGCCTGGTGTCCGCGCTGCCCCACCTGGTC  
 ATGACCATCATCGTCCCATCGGCGCCAGATCGCGGACTTCTCGGAGCCGCCGATCATGTCCACCA  
 CCAACGTGCGCAAGTTGATGAACCTGCGGAGGCTTCGGCATGGAAGCCACGCTGCTTGGTGGTGGCTA  
 CTGCGACTCCAAGGGCGTGGCCATCTCCTTCTGGTCTAGCCGTGGGCTTCAGCGGCTTCGCCATCTCT  
 GGGTTCAACGTGAACACCTGGACATAGCCCCGCGCTACGCCAGCATCCTCATGGGCATCTCCAACGGCG  
 TGGGCACACTGTCGGGCATGGTGTGCCCATCATCGTGGGGGCCATGACTAAGCACAAGACTCGGGAGGA  
 GTGGCAGTACGTGTTCTAATTGCCTCCCTGGTGCATATGGAGGTGTCATTTCTACGGGGTCTTTGCT  
 TCTGGAGAGAAGCAGCCGTGGGCAGAGCCTGAGGAGATGAGCGAGGAGAAGTGTGGCTTCGTTGGCCATG  
 ACCAGCTGGCTGGCAGTACGACAGCGAAATGGAGGATGAGGCTGAGCCCCGGGGGACCCCTGCACC  
 CCCGCCCTCTATGGGGCCACACAGCACATTTAGCCCCCAGGCCCCACCCCTGTCCGGACTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC209230 representing NM\_020309  
 Red=Cloning site Green=Tags(s)

MEFRQEERKLAGRALGKLRHLLLEKRQEGAELELSADGRPVTTQTRDPPVVDCTCFGLPRRYIIAIMSG  
 LGFCISFGIRCNLGVAIVSMVNSTTHRGGHVVVQKAQFSWDPETVGLIHGSFFWGYIVTQIPGGFICQK  
 FAANRVFGFAIVATSTLNMLIPSAARVHYGCVIFVRILQGLVEGVTPACHGIWSKWAPPLERSRLATTA  
 FCGSYAGAVVAMPLAGVLVQYSWSSVFVYVYGSFGIFWYLFWLLVSYESPALHPSISEEERKYIEDAIGE  
 SAKLMNPLTKFSTPWRFFTSMPVYAIIVANFCRSWTFYLLLSIQPAYFEEVFGFEISKVGLVSALPHLV  
 MTIIVPIGGQIADFLRSRIMSTTNVRKLMNCGGFGMEATLLL VVGYSHSGVAISFLVLAVGFSGFAIS  
 GFNVNHLDIAPRYASILMGISNGVGTLSGMVCP IIVGAMTKHKTRIEWQYVFLIASLVHYGGVIFYGVFA  
 SGKQPWAEPEEMSEKCGFVGHDLQLAGSDSEMEDEAEPPGAPPAPPPSYGATHSTFQPPRPPPPVRDY

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8114\\_a02.zip](https://cdn.origene.com/chromatograms/mk8114_a02.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

**ACCN:** NM\_020309

**ORF Size:** 1680 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

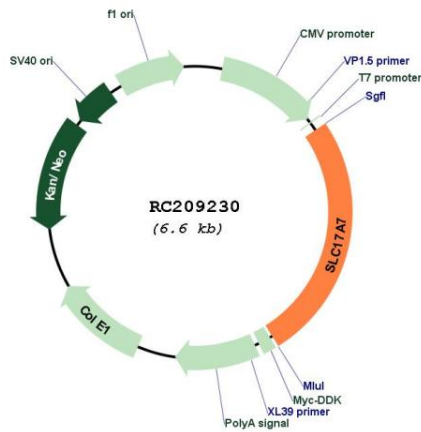
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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).

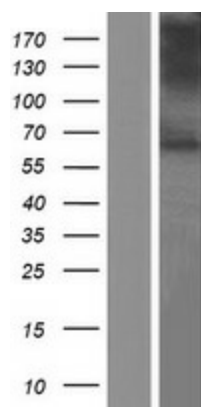
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_020309.4</u>
<b>RefSeq Size:</b>	2993 bp
<b>RefSeq ORF:</b>	1683 bp
<b>Locus ID:</b>	57030
<b>UniProt ID:</b>	<u>Q9P2U7</u>
<b>Cytogenetics:</b>	19q13.33
<b>Domains:</b>	sugar_tr
<b>Protein Families:</b>	Transmembrane
<b>MW:</b>	61.6 kDa
<b>Gene Summary:</b>	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 <sup>+</sup> /Pi cotransporter family. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC209230



Western blot validation of overexpression lysate (Cat# [LY412521]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209230 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).