

## Product datasheet for **RC222696**

### Glucose Transporter GLUT1 (SLC2A1) (NM\_006516) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Glucose Transporter GLUT1 (SLC2A1) (NM_006516) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Glucose Transporter GLUT1
Synonyms:	CSE; DYT9; DYT17; DYT18; EIG12; GLUT; GLUT-1; GLUT1; GLUT1DS; HTLVR; PED; SDCHCN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC222696 representing NM\_006516  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGCCAGCAGCAAGAAGCTGACGGGTGCGCTCATGTGGCCGTGGGAGGAGCAGTGTGGCTCCC  
 TGCAGTTTGGCTACAACACTGGAGTCATCAATGCCCCCAAGAAGTGATCGAGGAGTTCTACAACCAGAC  
 ATGGGTCCACCGCTATGGGGAGAGCATCCTGCCACCACGCTCACCACGCTCTGGTCCCTCTCAGTGGCC  
 ATCTTTTCTGTTGGGGCATGATTGGCTCCTTCTCTGTGGGCCTTTTCGTTAACCCTTTGGCCGGCGGA  
 ATTCAATGCTGATGATGAACCTGCTGGCCTTCGTGTCCGCGTGCTCATGGGCTTCTCGAAACTGGGCAA  
 GTCCTTTGAGATGCTGATCCTGGGCCGCTTCATCATCGGTGTGTACTGCGGCCTGACCACAGGCTTCGTG  
 CCCATGTATGTGGGTGAAGTGTACCCACAGCCCTTCGTGGGGCCCTGGGCACCTGCACCAGCTGGGCA  
 TCGTCGTGGCATCCTCATCGCCAGGTGTTCCGCTGGACTCCATCATGGGCAACAAGGACCTGTGGCC  
 CCTGCTGTGAGCATCATCTTCATCCCGCCCTGCTGCAGTGCATCGTGTGCCCTTCTGCCCGAGAGT  
 CCCCCTTCTGTGCTCATCAACCGCAACGAGGAGAACCGGGCCAAGAGTGTCTAAAGAAGCTGCGCGGGA  
 CAGCTGACGTGACCCATGACCTGACAGGAGATGAAGGAAGAGAGTGGCAGATGATGCGGGAGAAGAGGT  
 CACCATCTGGAGCTGTTCCGCTCCCCCGCTACCGCCAGCCATCCTCATCGTGTGGTGTGACGCTG  
 TCCCAGCAGCTGTCTGGCATCAACGCTGTCTTCTATTACTCCACGAGCATCTTCGAGAAGCGGGGGTGC  
 AGCAGCCTGTGTATGCCACCATTTGGCTCCGGTATCGTCAACACGGCCTTCACTGTCGTGTGCTGTTTGT  
 GGTGGAGCGAGCAGGCCGGCGGACCCTGCACCTCATAGGCCTCGTGGCATGGCGGGTGTGCCATACTC  
 ATGACCATCGCGCTAGCACTGCTGGAGCAGCTACCCTGGATGTCCTATCTGAGCATCGTGGCCATCTTTG  
 GCTTTGTGGCCTTCTTTGAAGTGGTCTGGCCCCATCCATGGTTCATCGTGGCTGAACCTTTCAGCCA  
 GGGTCCACGTCCAGTGCATTGCCGTTGCAGGCTTCTCCAAGTGGACCTCAAATTTTCATTGTGGGCATG  
 TGCTTCCAGTATGTGGAGCAACTGTGTGGTCCCTACGTCTTCATCATCTTCACTGTGCTCCTGGTCTGT  
 TCTTTCATCTTACCTACTTCAAAGTTCCTGAGACTAAAGGCCGGACCTTCGATGAGATCGCTTCCGGCTT  
 CCGGCAGGGGGAGCCAGCCAAAGTGACAAGACACCCGAGGAGCTGTTCCATCCCCTGGGGGCTGATTCC  
 CAAGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC222696 representing NM\_006516  
 Red=Cloning site Green=Tags(s)

MEPSSKLTGRLMLAVGGAVLGSQFQYNTGVINAPQKVIIEEFYNQTWVHRYGESILPTTLTTLWLSVA  
 IFSVGGMIGSFSVGLFVNRFGRNRSMLMMNLLAFVSAVLMGFSLKLSFEMILGRFIIIVYVCGLTGTFV  
 PMYVGEVSPTALRGALGTLHQLGIVVGIILIAQVGLDSIMGKDLWPLLSIIFIPALLQCIVLPFCPES  
 PRFLLINRNEENRAKSVLKKLRGTADVTHDLQEMKEESRQMMREKKVTILELFRSPAYRQPILIAVVLQL  
 SQQLSGINAVFYSTSI FEKAGVQPVYATIGSGIVNTAFTVVSFLFVVERAGRRTLHLIGLAGMAGCAIL  
 MTIALALLEQLPWMSYLSIVAI FGFVAF FEVGPPIPFIVAELFSQGRPAIIAVAGFSNWTSNFIVGM  
 CFQYVEQLCGPYVFIIFTVLLVLFIFTYFKVPETKGRTFDEIASGFRQGGASQSDKTPEELFHPLGADS  
 QV

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6106\\_d12.zip](https://cdn.origene.com/chromatograms/mk6106_d12.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_006516

**ORF Size:** 1476 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_006516.4](#)

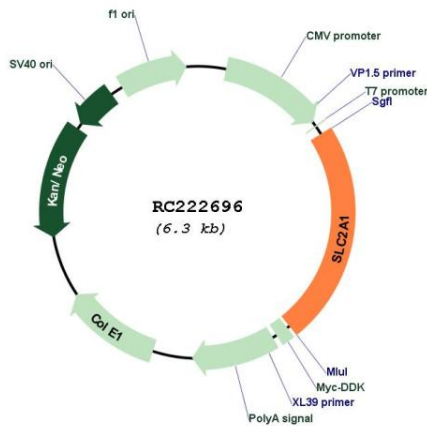
**RefSeq Size:** 2856 bp

**RefSeq ORF:** 1479 bp

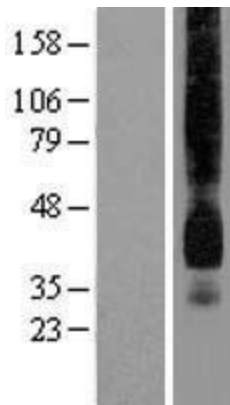
**Locus ID:** 6513

**UniProt ID:** [P11166](#)  
**Cytogenetics:** 1p34.2  
**Domains:** sugar\_tr  
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane  
**Protein Pathways:** Adipocytokine signaling pathway, Pathways in cancer, Renal cell carcinoma  
**MW:** 53.9 kDa  
**Gene Summary:** This gene encodes a major glucose transporter in the mammalian blood-brain barrier. The encoded protein is found primarily in the cell membrane and on the cell surface, where it can also function as a receptor for human T-cell leukemia virus (HTLV) I and II. Mutations in this gene have been found in a family with paroxysmal exertion-induced dyskinesia. [provided by RefSeq, Apr 2013]

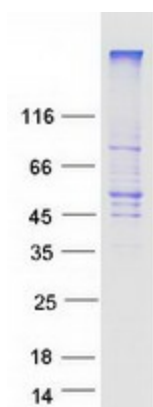
**Product images:**



Circular map for RC222696



Western blot validation of overexpression lysate (Cat# [LY416593]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222696 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SLC2A1 protein (Cat# [TP322696]). The protein was produced from HEK293T cells transfected with SLC2A1 cDNA clone (Cat# RC222696) using MegaTran 2.0 (Cat# [TT210002]).