

## Product datasheet for **RC221262**

### SLC2A2 (NM\_000340) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SLC2A2 (NM_000340) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC2A2
Synonyms:	GLUT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC221262 representing NM\_000340  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGACAGAAGATAAGGTCACTGGGACCCTGGTTTTCACTGTCATCACTGCTGTGCTGGGTTCTTCCAGT  
 TTGGATATGACATTGGTGTGATCAATGCACCTCAACAGGTAATAATATCTCACTATAGACATGTTTTGGG  
 GTTCCACTGGATGACCGAAAAGCTATCAACAACCTATGTTATCAACAGTACAGATGAACTGCCACAATC  
 TCATACTCAATGAACCCAAAACCAACCCCTTGGGCTGAGGAAGAGACTGTGGCAGCTGCTCAACTAATCA  
 CCATGCTCTGGTCCCTGTCTGTATCCAGCTTTCAGTTGGTGGAAATGACTGCATCATTCTTTGGTGGGTG  
 GCTTGGGACACACTTGGAGAATCAAAGCCATGTTAGTAGCAAACATTCTGTCATTAGTTGGAGCTCTC  
 TTGATGGGTTTTCAAATTTGGGACCATCTCATATACTTATAATTGCTGGAAGAAGCATATCAGGACTAT  
 ATTGTGGGCTAATTTAGGCCTGGTTCCTATGTATATCGGTGAAATTGCTCAACCGCTCTCAGGGGAGC  
 ACTTGGCACTTTTCATCAGCTGGCCATCGTCACGGGCATTCTTATTAGTCAGATTATTGGTCTTGAATTT  
 ATCTTGGCAATTATGATCTGTGGCACATCCTGCTTGGCCTGTCTGGTGTGCGAGCCATCCTTCAGTCTC  
 TGCTACTCTTTTTCTGTCCAGAAAGCCCGAGATACCTTTACATCAAGTTAGATGAGGAAGTCAAAGCAAA  
 ACAAGGCTTAAAAGACTCAGAGGATATGATGATGTACCAAAGATATTAATGAAATGAGAAAAGAAAGA  
 GAAGAAGCATCGAGTGAGCAGAAAGTCTCTATAATTCAGCTCTTCACCAATTCAGCTACCGACAGCCTA  
 TTCTAGTGGCACTGATGCTGCATGTGGCTCAGCAATTTCCGGAATCAATGGCATTCTTTACTACTCAAC  
 CAGCATTTTTCAGACGGCTGGTATCAGCAAACCTGTTTATGCAACCATTGGAGTTGGCGCTGTAACATG  
 GTTTTCACTGCTGCTCTGTATTCCTTGTGGAGAAGGCAGGGCGACGTTCTCTTTCTAATTGGAATGA  
 GTGGGATGTTTTGTTGTGCCATCTTCATGTCAGTGGGACTTGTGCTGCTGAATAAGTTCTCTGGATGAG  
 TTATGTAGCATGATAGCCATCTTCTCTTTGTGACGTTCTTTGAAATTGGGCCAGGCCCGATCCCTGG  
 TTCATGGTGGCTGAGTTTTTTCAGTCAAGGACCAGTCCTGCTGCTTTAGCAATAGCTGCATTGAGCAATT  
 GGACCTGCAATTTCAATTGAGCTCTGTGTTTCCAGTACATTGCGGACTTCTGTGGACCTTATGTGTTTTT  
 CCTTTTGTGGAGTGTCTGCTGCTTTACCCTGTTTACATTTTTTAAAGTTCCAGAAACCAAAGGAAAAG  
 TCTTTTGGAGAAATTGCTGCAGAATCCAAAAGAAGAGTGGCTCAGCCCCACAGGCCAAAAGCTGCTGTAG  
 AAATGAAATTCCTAGGAGCTACAGAGACTGTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC221262 representing NM\_000340  
 Red=Cloning site Green=Tags(s)

MTEDKVTGTLVFTVITAVLGSFQFGYDIGVINAPQQVIIISHYRHVLGVPLDDRKAINNYVINSTDELPTI  
 SYMNPKPTPWAEETVAAAQLITMLWSLSVSSF AVGGMTASFFGGWLGDTLGRKAMLVANILSLVGL  
 LMGFSKLGPSHILIIAGRSISGLYCGLISGLVPMYIGE IAPTALRGALGTFHQLAIVTGILISQIIGLEF  
 ILGNYDLWHILLGLSGVRAILQSLLLFFCPESPRYLIIKLDDEEVKAKQSLKRLRGYDDVTKDINEMRKER  
 EEASSEQKVSIIQLFTNSSYRQPILVALMLHVAQQFSGINGIFYYSTSIFQTAGISKPVYATIGVAVNM  
 VFTAVSVFLVEKAGRRSLFLIGMSGMFVCAIFMSVGLVLLNKFWSMSYVSMIAIFLVSFFEIGPGPIW  
 FMVAEFFSQGPRPAALIAAFSNWTCNFIVALCFQYIADFCGPYVFFLFAVLLAFTLFTFFKVPETKGG  
 SFEEIAAEFQKKSGSAHRPKAAVEMKFLGATETV

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_000340

ORF Size: 1572 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](#)

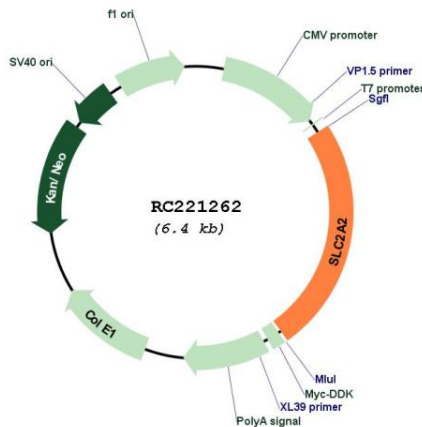
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.

**RefSeq:** [NM\\_000340.2](#)  
**RefSeq Size:** 3439 bp  
**RefSeq ORF:** 1575 bp  
**Locus ID:** 6514  
**UniProt ID:** [P11168](#)  
**Cytogenetics:** 3q26.2  
**Domains:** sugar\_tr  
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane  
**Protein Pathways:** Maturity onset diabetes of the young, Type II diabetes mellitus  
**MW:** 57.3 kDa  
**Gene Summary:** This gene encodes an integral plasma membrane glycoprotein of the liver, islet beta cells, intestine, and kidney epithelium. The encoded protein mediates facilitated bidirectional glucose transport. Because of its low affinity for glucose, it has been suggested as a glucose sensor. Mutations in this gene are associated with susceptibility to diseases, including Fanconi-Bickel syndrome and noninsulin-dependent diabetes mellitus (NIDDM). Alternative splicing results in multiple transcript variants of this gene. [provided by RefSeq, Jul 2013]

**Product images:**



Circular map for RC221262