

## Product datasheet for **RG213717**

### GLUT4 (SLC2A4) (NM\_001042) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GLUT4 (SLC2A4) (NM_001042) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GLUT4
Synonyms:	GLUT4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG213717 representing NM\_001042  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCGTCGGGCTTCCAACAGATAGGCTCCGAAGATGGGGAACCCCTCAGCAGCGAGTGACTGGGACCC  
 TGGTCCTTGCTGTGTTCTCTGCGGTGCTTGGCTCCCTGCAGTTTGGGTACAACATTGGGGTCATCAATGC  
 CCCTCAGAAGGTGATTGAACAGAGCTACAATGAGACGTGGCTGGGAGGCAGGGGCTGAGGGACCCAGC  
 TCCATCCCTCCAGGCACCCTCACCACCCTCTGGGCCCTCTCCGTGGCCATCTTTCCGTGGGCGGCATGA  
 TTTCTCTTCTCATTGGTATCATCTCTCAGTGGCTTGAAGGAAAAGGGCCATGCTGGTCAACAAATGT  
 CCTGGCGGTGCTGGGGGCGACCTCATGGGCTGGCCAACGCTGCTGCCTCTATGAAATGCTCATCCTT  
 GGACGATTCCTCATTGGCGCTACTCAGGGCTGACATCAGGGCTGGTGGCCATGTACGTGGGGGAGATTG  
 CTCCCCTCACCTGCGGGGCGCCCTGGGACGCTCAACCAACTGGCCATTGTTATCGGCATTCTGATCGC  
 CCAGGTGCTGGGCTTGGAGTCCCTCTGGGCACTGCCAGCCTGTGGCCACTGCTCCTGGGCTCACAGTG  
 CTACCTGCCCTCCTGCAGCTGGTCTGTGCCCTTCTGTCCCAGAGCCCCGCTACCTCTACATCATCC  
 AGAATCTCGAGGGGCTGCCAGAAAGAGTCTGAAGCGCCTGACAGGCTGGGCCGATGTTTCTGGAGTGCT  
 GGCTGAGCTGAAGGATGAGAAGCGGAAGCTGGAGCGTGAGCGGCCACTGTCCCTGCTCCAGCTCCTGGGC  
 AGCCGTACCCACCGGCAGCCCTGATCATTGCGGTGCTGCTGCAGCTGAGCCAGCAGCTCTCTGGCATCA  
 ATGCTGTTTTCTATTATTCGACCAGCATCTTCGAGACAGCAGGGGTAGGCCAGCCTGCCTATGCCACCAT  
 AGGAGCTGGTGTGGTCAACACAGTCTTCACCTTGGTCTCGGTGTTGTTGGTGGAGCGGGCGGGCGCCGG  
 ACGCTCCATCTCTGGGCTGGCGGCATGTGTGGCTGTGCCATCCTGATGACTGTGGCTGCTCCTCTGCT  
 TGGAGCGAGTCCAGCCATGAGTACGTCTCCATTGTGGCCATCTTTGGCTTCGTGGCATTTTTTGATG  
 TGGCCCTGGCCCATTCCTTGGTTCATCGTGGCGAGCTTTCAGCCAGGGACCCCGCCCGCAGCCATG  
 GCTGTGGCTGTTTCTCCAACCTGGACGACAACTTCATCATTGGCATGGGTTTCCAGTATGTTGGGAGG  
 CTATGGGGCCCTACGTCTTCTTCTATTTGCGGTCTCCTGCTGGGCTTCTTCATCTTACCTTCTTAAG  
 AGTACCTGAAACTCGAGGCCGACGTTTGACCAGATCTCAGCTGCCTTCCACCGGACACCCTCTCTTTTA  
 GAGCAGGAGGTGAAACCCAGCACAGAATTGAGTATTTAGGGCCAGATGAGAACGAC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG213717 representing NM\_001042  
 Red=Cloning site Green=Tags(s)

MPSGFQQIGSEDEPPQQRVTGLVLAVFSAVLGSLQFGYINIGVINAPQKVIEQSYNETWLGRQGPEGPS  
 SIPPGLTTLWALSVAIFSVGGMISFLIGIISQWLGRKRAMLVNNVLAVLGGSLMGLANAASYEMLIL  
 GRFLIGAYSGLTSGLVPMYVGEIAPTHLRGALGTLNQLAIVIGILIAQVLGLESLLGTASLWPLLLGLTV  
 LPALLQLVLLPFCPEsprlyYIIQNLEGPARKSLKRLTGWADVSGVLAELKDEKRLERERPLSLLQLLG  
 SRTHRQPLIIAVVLQLSQQLSGINAVFYSTSFETAGVGPAYATIGAGVVNTVFTLVSLLVERAGR  
 TLHLLGLAGMCGCAILMTVALLLLERVPAMSYVSIVAFGFVAFFEIGPGPIPWFIVAELFSQGRPAAM  
 AVAGFSNWTSNFIIGMGFYVAEAMGPYVFLFAVLLLGFFIFTFLRVPETRGRTFDQISAAFHRTPSLL  
 EQEVKPESTELEYLGPDEND

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001042

**ORF Size:** 1527 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\\_001042.1](#), [NP\\_001033.1](#)

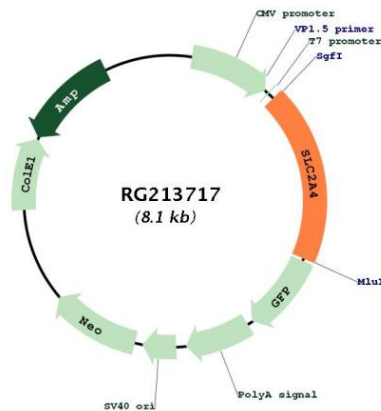
RefSeq Size: 2128 bp  
 RefSeq ORF: 1530 bp  
 Locus ID: 6517  
 UniProt ID: [P14672](#)  
 Cytogenetics: 17p13.1

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Adipocytokine signaling pathway, Insulin signaling pathway, Type II diabetes mellitus

Gene Summary: This gene is a member of the solute carrier family 2 (facilitated glucose transporter) family and encodes a protein that functions as an insulin-regulated facilitative glucose transporter. In the absence of insulin, this integral membrane protein is sequestered within the cells of muscle and adipose tissue. Within minutes of insulin stimulation, the protein moves to the cell surface and begins to transport glucose across the cell membrane. Mutations in this gene have been associated with noninsulin-dependent diabetes mellitus (NIDDM). [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG213717