OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC213717

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:	Myc-DDK
Symbol:	GLUT4
Synonyms:	GLUT4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC213717 representing NM_001042
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCGTCGGGCTTCCAACAGATAGGCTCCGAAGATGGGGAACCCCCTCAGCAGCGAGTGACTGGGACCC
TGGTCCTTGCTGTGTTCTCTGCGGTGCTTGGCTCCCTGCAGTTTGGGTACAACATTGGGGTCATCAATGC
CCCTCAGAAGGTGATTGAACAGAGCTACAATGAGACGTGGCTGGGGAGGCAGGGGCCTGAGGGACCCAGC
TCCATCCCTCCAGGCACCCTCACCACCCTCTGGGCCCTCTCCGTGGCCATCTTTTCCGTGGGCGGCATGA
TTTCCTCCTTCCTCATTGGTATCATCTCTCAGTGGCTTGGAAGGAAAAGGGCCATGCTGGTCAACAATGT
CCTGGCGGTGCTGGGGGGCAGCCTCATGGGCCTGGCCAATGCTGCTGCCTCCTATGAAATGCTCATCCTT
GGACGATTCCTCATTGGCGCCTACTCAGGGCTGACATCAGGGCTGGTGCCCATGTACGTGGGGGAGATTG
CTCCCACTCACCTGCGGGGCGCCCTGGGGACGCTCAACCAACTGGCCATTGTTATCGGCATTCTGATCGC
CCAGGTGCTGGGCTTGGAGTCCCTCCTGGGCACTGCCAGCCTGTGGCCACTGCTCCTGGGCCTCACAGTG
CTACCTGCCCTCCTGCAGCTGGTCCTGCTGCCCTTCTGTCCCGAGAGCCCCCGCTACCTCTACATCATCC
AGAATCTCGAGGGGCCTGCCAGAAAGAGTCTGAAGCGCCTGACAGGCTGGGCCGATGTTTCTGGAGTGCT
GGCTGAGCTGAAGGATGAGAAGCGGAAGCTGGAGCGTGAGCGGCCACTGTCCCTGCTCCAGCTCCTGGGC
AGCCGTACCCACCGGCAGCCCCTGATCATTGCGGTCGTGCTGCAGCTGAGCCAGCAGCTCTCTGGCATCA
ATGCTGTTTTCTATTATTCGACCAGCATCTTCGAGACAGCAGGGGTAGGCCAGCCTGCCTATGCCACCAT
AGGAGCTGGTGTGGTCAACACAGTCTTCACCTTGGTCTCGGTGTTGTTGGTGGAGCGGGCGGGGCGCCGG
ACGCTCCATCTCCTGGGCCTGGCGGGCATGTGTGGCTGTGCCATCCTGATGACTGTGGCTCTGCTCCTGC
TGGAGCGAGTTCCAGCCATGAGCTACGTCTCCATTGTGGCCATCTTTGGCTTCGTGGCATTTTTTGAGAT
TGGCCCTGGCCCCATTCCTTGGTTCATCGTGGCCGAGCTCTTCAGCCAGGGACCCCGCCCGGCAGCCATG
GCTGTGGCTGGTTTCTCCAACTGGACGAGCAACTTCATCATTGGCATGGGTTTCCAGTATGTTGCGGAGG
CTATGGGGCCCTACGTCTTCCTTCTATTTGCGGTCCTCCTGCTGGGCTTCTTCATCTTCACCTTCTTAAG
AGTACCTGAAACTCGAGGCCGGACGTTTGACCAGATCTCAGCTGCCTTCCACCGGACACCCTCTCTTTTA
GAGCAGGAGGTGAAACCCAGCACAGAACTTGAGTATTTAGGGCCAGATGAGAACGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213717 representing NM_001042
Red=Cloning site Green=Tags(s)

MPSGFQQIGSEDGEPPQQRVTGTLVLAVFSAVLGSLQFGYNIGVINAPQKVIEQSYNETWLGRQGPEGPS
SIPPGTLTTLWALSVAIFSVGGMISSFLIGIISQWLGRKRAMLVNNVLAVLGGSLMGLANAAASYEMLIL
GRFLIGAYSGLTSGLVPMYVGEIAPTHLRGALGTLNQLAIVIGILIAQVLGLESLLGTASLWPLLLGLTV
LPALLQLVLLPFCPESPRYLYIIQNLEGPARKSLKRLTGWADVSGVLAELKDEKRKLERERPLSLLQLLG
SRTHRQPLIIAVVLQLSQQLSGINAVFYYSTSIFETAGVGQPAYATIGAGVVNTVFTLVSVLLVERAGRR
TLHLLGLAGMCGCAILMTVALLLLERVPAMSYVSIVAIFGFVAFFEIGPGPIPWFIVAELFSQGPRPAAM
AVAGFSNWTSNFIIGMGFQYVAEAMGPYVFLLFAVLLLGFFIFTFLRVPETRGRTFDQISAAFHRTPSLL
EQEVKPSTELEYLGPDEND

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3202_b09.zip

Restriction Sites: SgfI-MluI

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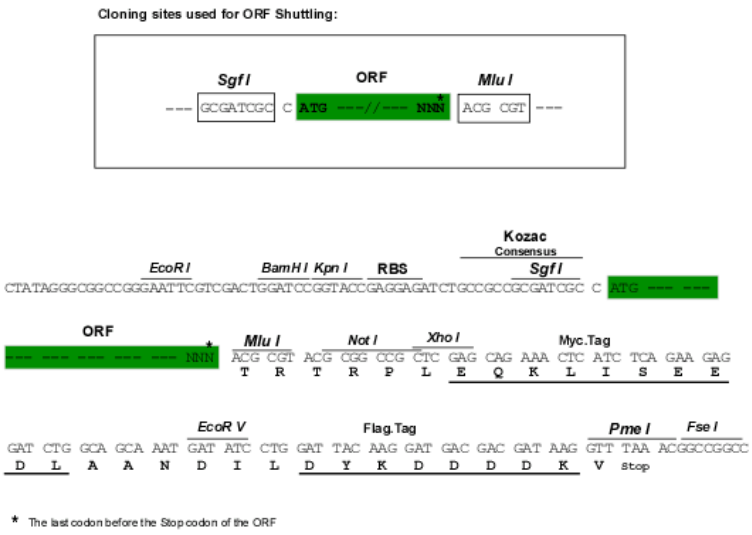
Cloning Scheme:



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 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.

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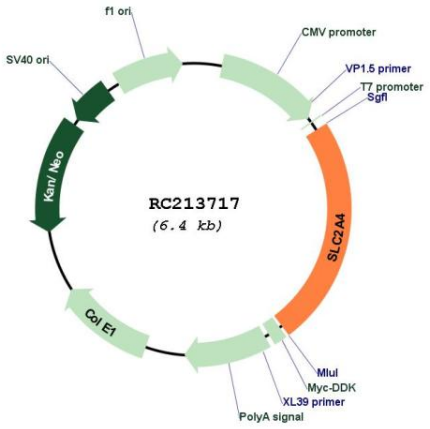
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001042.3
RefSeq Size:	2128 bp
RefSeq ORF:	1530 bp
Locus ID:	6517
UniProt ID:	P14672
Cytogenetics:	17p13.1
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Adipocytokine signaling pathway, Insulin signaling pathway, Type II diabetes mellitus
MW:	54.6 kDa
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 RC213717

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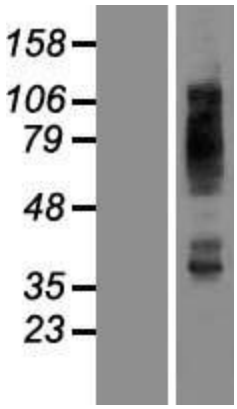
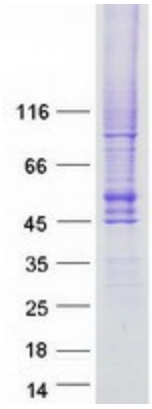


Western blot validation of overexpression lysate (Cat# [LY420842]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213717 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SLC2A4 protein (Cat# [TP313717]). The protein was produced from HEK293T cells transfected with SLC2A4 cDNA clone (Cat# RC213717) using MegaTran 2.0 (Cat# [TT210002]).

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