

## Product datasheet for **RG232821**

### **MCT2 (SLC16A7) (NM\_001270623) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MCT2 (SLC16A7) (NM_001270623) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC16A7
Synonyms:	MCT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG232821 representing NM\_001270623  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGCCACCAATGCCAAGTGCCCCACCTGTGCATCCACCTCCAGATGGAGGATGGGGTTGGATTGTGGTTG  
 GAGCAGCTTTTATCTCCATTGGATTTTCTATGCATTCCCAAAGCTGTACCGTATTCTCAAAGAAAT  
 TCAGCAAATATCCACACTACCTACAGTAAATAGCATGGATTTTCATCCATTATGCTGGCTGTTATGTAC  
 GCAGGAGGTCTGTAAGTAGTGTGGTGAATAAATACGGCAGCCGGCCGGTGGTATAGCAGGAGGCT  
 TATTATGCTGTCTTGAATGGTGTGGCCTCCTTAGTAGCAGCGTGTACAGCTGTACCTCACTATGGG  
 ATTCATTACAGGTTTAGGTTTAGCCTTCAACCTGCAACCCGCCTTAACCATAATTGGCAAATACTTCTAT  
 AGGAAGCGACCCATGGCAAATGGATTGGCCATGGCAGGAAGTCTGTTTTCTAAGTTCATTGGCTCCTT  
 TCAATCAGTACCTTTTAACTTTTGGCTGGAAGGAAGCTTCTGATTTTGGGAAGTCTACTTTTGAA  
 TGCTGTGTGGCTGGTCCCTCATGAGACCCCTTGGACCAATCAAACCACTTCTAAGTCTAAAAAATAAG  
 ACTGGCAAACAGAAGATGATTCAGCCCAAAGAAAATCAAACGAAGAAATCAACTTGGGAAAAAGTTA  
 ATAAGTATTTAGATTTCTCCCTTTTAAAGCATAGAGGATTTCTGATATATCTGTCTGGAAATGTCATTAT  
 GTTCTAGGTTTTTTGCCCCATTATATTCTGGCTCCATATGCTAAAGACCAAGGAATTGATGAGTAC  
 TCGGCAGCTTTTCTGCTATCTGTTATGGCTTTCGTTGATATGTTTGTAGGCCTTCTGTAGGATTAATTG  
 CAACTCCAAATATATTCGACCTCGAATTCAGTACTTCTCAGTTTTGCAATCATGTTCAATGGAGTGTG  
 TCACCTCTTGCCCACTGGCACAGGACTACACAAGCCTGGTATTATGCTGTATTTTTGGCCTTGGG  
 TTTGGGAGTGTAGCAGTGTCTCTTTGAACTCTCATGGACCTCGTGGTGCACCAAGATTTCCAGTG  
 CCGTCGGACTTGTACAATTGTGGAGTGTGGCCAGTCTTCTTGGCCCTCCTTTCAGGATAAATGGT  
 GGATTTAACTGGAGAATAAAATACATGTACATGTCTGTGGGCTATTGTGGTAGCAGCAAGCGTGTGG  
 CTGCTCATTGGCAATGCTATCAACTATAGATTGCTTGCAAAGGAAGGAAGGAGGAAAATGCAAGGCAGA  
 AGACCAGAGAATCTGAACCCCTGAGCAAATCTAAACATTCGGAAGATGTTAACGTCAAAGTTTCAAATGC  
 ACAGAGTGAACCTCAGAAAGAGAACTAACATT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG232821 representing NM\_001270623  
 Red=Cloning site Green=Tags(s)

MPPMPSAPPVHPPDGGWGWIVVGAAFISIGFSYAFPKAVTVFFKEIQQIFHTTYSEIAWISSIMLAVMY  
 AGGPVSSVLVNKYGSRPVVIAGLLCCLGMVLASFSSSVVQLYLTMGFITGLGLAFNLQPALTIIGKYFY  
 RKRPMANGLAMAGSPVFLSSLAPFNQYLFNTFGWKGSFLILGSLLLNACVAGSLMRPLGPNQTTSSKSNK  
 TGKTEDDSSPKIKTKKSTWEKVNKYLDLDFSLFKHRGFLIYLSGNVIMFLGFFAPIIFLAPYAKDQIDEY  
 SAAFLLSVMAFVDMFARPSVGLIANSKYIRPRIQYFFSFAIMFNGVCHLLCPLAQDYTSLVLYAVFFGLG  
 FGSVSSVLFETLMDLVGAPRFSSAVGLVTIVECGPVLLGPPLAGKLVDLTGEYKMYMSCGAIVVAASVW  
 LLIGNAINYRLLAKERKEENARQKTRESEPLSKSKHSEDEVNVKVSNAQSVTSERETNI

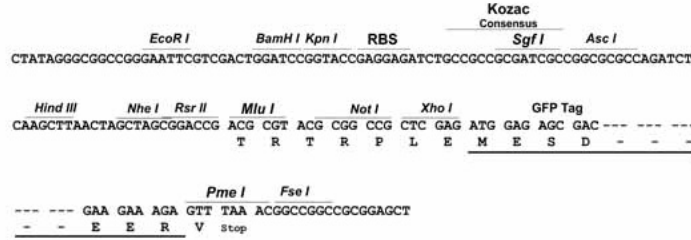
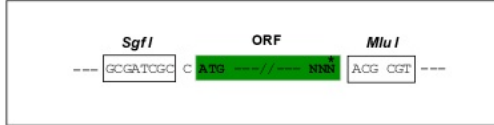
TRTRPLE – GFP Tag – V

**Restriction Sites:**

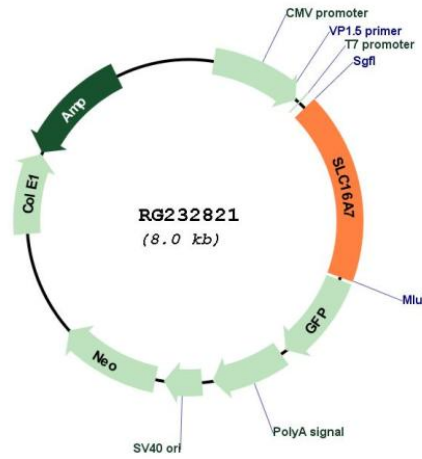
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM\_001270623  
 ORF Size: 1434 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<p><a href="#">NM_001270623.2</a></p>
<b>RefSeq Size:</b>	<p>11939 bp</p>
<b>RefSeq ORF:</b>	<p>1437 bp</p>
<b>Locus ID:</b>	<p>9194</p>
<b>UniProt ID:</b>	<p><a href="#">O60669</a></p>
<b>Cytogenetics:</b>	<p>12q14.1</p>
<b>Protein Families:</b>	<p>Transmembrane</p>
<b>Gene Summary:</b>	<p>This gene is a member of the monocarboxylate transporter family. Members in this family transport metabolites, such as lactate, pyruvate, and ketone bodies. The protein encoded by this gene catalyzes the proton-linked transport of monocarboxylates and has the highest affinity for pyruvate. This protein has been reported to be more highly expressed in prostate and colorectal cancer specimens when compared to control specimens. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2012]</p>