

Product datasheet for **RG232820**

MCT2 (SLC16A7) (NM_001270622) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MCT2 (SLC16A7) (NM_001270622) 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:

>RG232820 representing NM_001270622
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGCCACCAATGCCAAGTGCCCCACCTGTGCATCCACCTCCAGATGGAGGATGGGGTTGGATTGTGGTTG
 GAGCAGCTTTTATCTCCATTGGATTTTCTATGCATCCCAAAGCTGTACCGTATTCTCAAAGAAAT
 TCAGCAAATATCCACACTACCTACAGTAAATAGCATGGATTTTCATCCATTATGCTGGCTGTTATGTAC
 GCAGGAGGTCTGTAAGTAGTGTGGTGAATAAATACGGCAGCCGGCCGGTGGTATAGCAGGAGGCT
 TATTATGCTGTCTTGAATGGTGTGGCCTCCTTAGTAGCAGCGTGTACAGCTGTACCTCACTATGGG
 ATTCATTACAGGTTTAGGTTTAGCCTTCAACCTGCAACCCGCCTTAACCATAATTGGCAAATACTTCTAT
 AGGAAGCGACCCATGGCAAATGGATTGGCCATGGCAGGAAGTCTGTTTTCTAAGTTCATTGGCTCCTT
 TCAATCAGTACCTTTTAACTTTTGGCTGGAAAGGAAGCTTCTGATTTTGGGAAGTCTACTTTTGAA
 TGCTGTGTGGCTGGTCCCTCATGAGACCCCTTGGACCAATCAAACCACTTCTAAGTCTAAAAAATAAG
 ACTGGCAAACAGAAGATGATTCAGCCCAAAGAAAATCAAACGAAGAAATCAACTTGGGAAAAAGTTA
 ATAAGTATTTAGATTTCTCCCTTTTAAAGCATAGAGGATTTCTGATATATCTGTCTGGAAATGTCATTAT
 GTTCTAGGTTTTTTGCCCCATTATATTCTGGCTCCATATGCTAAAGACCAAGGAATTGATGAGTAC
 TCGGCAGCTTTTCTGCTATCTGTTATGGCTTTCGTTGATGTTTGTAGGCCTTCTGTAGGATTAATTG
 CAACTCCAAATATTCGACCTCGAATTCAGTACTTCTCAGTTTTGCAATCATGTTCAATGGAGTGTG
 TCACCTCTTGCCCACTGGCACAGGACTACACAAGCCTGGTATTATGCTGTATTTTTGGCCTTGGG
 TTTGGGAGTGTAGCAGTGTCTCTTTGAACTCTCATGGACCTCGTGGTGCACCAAGATTTCCAGTG
 CCGTCGGACTTGTACAATTGTGGAGTGTGGCCAGTCTTCTTGGCCCTCCTTTCAGGATAAATGGT
 GGATTTAACTGGAGAATAAAATACATGTACATGCTGTGGGGCTATTGTGGTAGCAGCAAGCGTGTGG
 CTGCTCATTGGCAATGCTATCAACTATAGATTGCTTGCAAAGGAAAGGAAGGAGGAAAATGCAAGGCAGA
 AGACCAGAGAATCTGAACCCCTGAGCAAATCTAAACATTCGGAAGATGTTAACGTCAAAGTTTCAAATGC
 ACAGAGTGAACCTCAGAAAGAGAACTAACATT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG232820 representing NM_001270622
 Red=Cloning site Green=Tags(s)

MPPMPSAPPVHPPDGGWGWIVVGAAFISIGFSYAFPKAVTVFFKEIQQIFHTTYSEIAWISSIMLAVMY
 AGGPVSSVLVNKYGSRPVVIAGLLCCLGMVLASFSSSVVQLYLTMGFITGLGLAFNLQPALTIIGKYFY
 RKRPMANGLAMAGSPVFLSSLAPFNQYLFNTFGWKGSFLILGSLLLNACVAGSLMRPLGPNQTTSSKSNK
 TGKTEDDSSPKIKTKKSTWEKVNKYLDLDFSLFKHRGFLIYLSGNVIMFLGFFAPIIFLAPYAKDQIDEY
 SAAFLLSVMAFVDMFARPSVGLIANSKYIRPRIQYFFSFAIMFNGVCHLLCPLAQDYTSLVLYAVFFGLG
 FGSVSSVLFETLMDLVGAPRFSSAVGLVTIVECGPVLLGPPLAGKLVDLTGEYKMYMSCGAIVVAASVW
 LLIGNAINYRLLAKERKEENARQKTRESEPLSKSKHSEDEVNVKVSNAQSVTSERETNI

TRTRPLE – GFP Tag – V

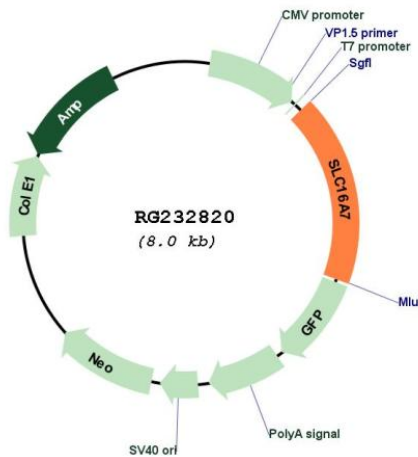
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001270622

ORF Size: 1434 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.

RefSeq: [NM_001270622.2](#)

RefSeq Size: 11919 bp

RefSeq ORF: 1437 bp

Locus ID: 9194

UniProt ID: [O60669](#)

Cytogenetics: 12q14.1

Protein Families: Transmembrane

Gene Summary: 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]