

Product datasheet for **RC230182**

Monocarboxylic acid transporter 1 (SLC16A1) (NM_001166496) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Monocarboxylic acid transporter 1 (SLC16A1) (NM_001166496) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Monocarboxylic acid transporter 1
Synonyms:	HHF7; MCT; MCT1; MCT1D
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC230182 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCACCAGCAGTTGGAGGTCCAGTTGGATACACCCCCCAGATGGAGGCTGGGCTGGCAGTGGTAA
 TTGGAGCTTTTCATTTCCATCGGCTTCTCTTATGCATTTCCAAATCAATTAAGTCTTTCAAAGAGAT
 TGAAGGTATATCCATGCCACCACCAGCGAAGTGTATGGATATCCTCCATAATGTTGGCTGTCATGTAT
 GGTGGAGGTCCTATCAGCAGTATCCTGGTGAATAAATATGGAAGTCGTATAGTCATGATTGTTGGTGGCT
 GCTTGTCAAGGCTGGCTTGATTGCAGCTTCTTTCTGTAACACCGTACAGCAACTATACGCTGTATTGG
 AGTCATTGGAGGCTTGGGCTTGCCTTCAACTGAATCCAGCTCTGACCATGATTGGCAAGTATTCTAC
 AAGAGGCGACCATTGGCCACGGACTGGCCATGGCAGGCAGCCCTGTGTTCTCTGTACTCTGGCGCCC
 TCAATCAGGTTTTCTTCGGTATCTTTGGATGGAGAGGAAGCTTTCTAATCTTGGGGCTTGCTACTAAA
 CTGCTGTGTTGCTGGAGCCCTCATGCGACCAATCGGGCCAAGCCAACCAAGGCAGGAAAGATAAGTCT
 AAAGCATCCCTTGAGAAAGCTGGAATCTGGTGTGAAAAAGATCTGCATGATGCAAAACAGATCTTA
 TTGGAAGACACCCATAACAAGAGAAACGATCAGTCTTCCAAACAATTAATCAGTTCCTGGACTTAACCTT
 ATTCACCCACAGAGGCTTTTGTATACCTCTCTGAAATGTGATCATGTTTTTGGACTCTTTCACCT
 TTGGTGTTCCTAGTAGTTATGGGAAGAGTCAGCATTATCTAGTGAGAAGTCTGCCTTCTTCTTTCCA
 TTCTGGCTTTTGTGACATGGTAGCCGACCATCTATGGGACTTGTAGCCAACACAAAGCCAATAAGACC
 TCGAATCAGTATTTCTTGGCGCTTCCGTTGTTGCAATGGAGTGTGCATATGCTAGCACCTTATCC
 ACTACCTATGTTGATTCTGTGTCTATGCGGGATTCTTTGGATTGCCTTCGGTGGCTCAGCTCCGAT
 TGTTTGAACATTGATGGACCTTGTGGACCCAGAGGTTCTCCAGCGCTGTGGGATTGGTGACCTTGT
 GGAATGCTGTCCCTCCTGGGGCCACCACTTTTAGGTCTGGCTCAATGACATGTATGGAGACTACAAA
 TACACATACTGGGCATGTGGCGTCGTCCTAATTATTTAGGTATCTATCTTTCATTGGCATGGGCATCA
 ATTATCGACTTTTGGCAAAGAACAGAAAGCAACGAGCAGAAAAAGGAAAGTAAAGAGGAAGAGACCAG
 TATAGATGTTGCTGGGAAGCCAAATGAAGTTACCAAAGCAGCAGAATCTCCAGACCAGAAAGACACAGAT
 GGAGGGCCCAAGGAGGAGAAAGTCCAGTC

**ACGGTACGGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA**

Protein Sequence:

>RC230182 protein sequence
 Red=Cloning site Green=Tags(s)

MPPAVGGPVGYTPPDGGWGWAVVIGAFISIGFSYAFPKSITVFFKEIEGIFHATTSEVSWISSIMLAVMY
 GGGPISSILVNKYGSRIVMIVGGCLSGCGLIAASFCNTVQQLYVCIGVIGLGLAFNLPALTMIGKYFY
 KRRPLANGLAMAGSPVFLCTLAPLNQVFFGIFGWRGSFLILGLLNCCVAGALMRPIGPKPTKAGKDKS
 KASLEKAGKSGVKKDLHDANTDLIGRHPKQEKRSVFQTNQFLDLTLFTHRGFLLYLSGNVIMFFGLFAP
 LVFLSSYGKSSQHSSEKSAFLLSILAFVDMVARPSMGLVANTKPIRPRIQYFFAASVVANGVCHMLAPLS
 TTYVGFVYAGFFGFAGWLVSSVLFETLMDLVGPQRFSSAVGLVTIVECCPVLLGPPLLGRINDMYGDYK
 YTYWACGVVLIISGIYLFIMGINYRLLAKEQKANEQKESKEEETSIDVAGKPNVTKAAESPDQKDTD
 GGPKEEESPV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6196_c08.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_001166496

ORF Size: 1500 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](#)

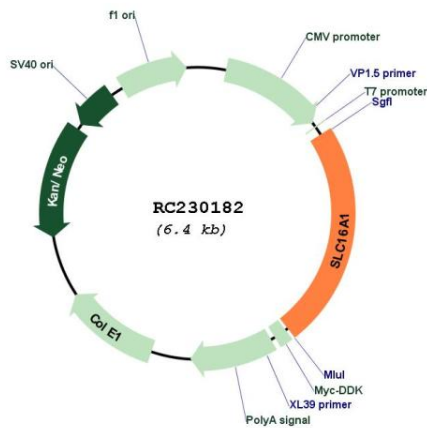
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

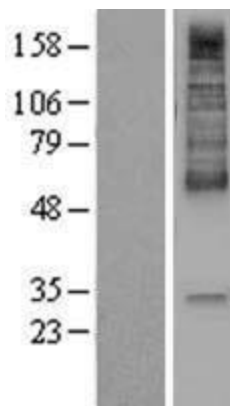
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

RefSeq: [NM_001166496.1](#), [NP_001159968.1](#)
 RefSeq Size: 4390 bp
 RefSeq ORF: 1503 bp
 Locus ID: 6566
 UniProt ID: [P53985](#)
 Cytogenetics: 1p13.2
 Protein Families: Transmembrane
 MW: 53.9 kDa
 Gene Summary: The protein encoded by this gene is a proton-linked monocarboxylate transporter that catalyzes the movement of many monocarboxylates, such as lactate and pyruvate, across the plasma membrane. Mutations in this gene are associated with erythrocyte lactate transporter defect. Alternatively spliced transcript variants have been found for this gene.[provided by RefSeq, Oct 2009]

Product images:



Circular map for RC230182



Western blot validation of overexpression lysate (Cat# [LY433182]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC230182 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).