

Product datasheet for **RC205213**

Monocarboxylic acid transporter 1 (SLC16A1) (NM_003051) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Monocarboxylic acid transporter 1 (SLC16A1) (NM_003051) 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:

>RC205213 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCACCAGCAGTTGGAGGTCCAGTTGGATACACCCCCCAGATGGAGGCTGGGCTGGGCAGTGGTAA
 TTGGAGCTTTTCATTTCCATCGGCTTCTCTTATGCATTTCCCAAATCAATTAAGTCTTCTCAAAGAGAT
 TGAAGGTATATCCATGCCACCACCAGCGAAGTGTATGGATATCCTCCATAATGTTGGCTGTCATGTAT
 GGTGGAGGTCCTATCAGCAGTATCCTGGTGAATAAATATGGAAGTCGTATAGTCATGATTGTTGGTGGCT
 GCTTGTGAGGCTGGCTTATTGCAGCTTCTTTCTGTAACACCGTACAGCAACTATACGCTGTATTGG
 AGTCATTGGAGGCTTGGGCTTGCCTTCAACTGAATCCAGCTCTGACCATGATTGGCAAGTATTCTAC
 AAGAGGCGACCATTGGCCAACGGACTGGCCATGGCAGGCAGCCCTGTGTTCTCTGTACTCTGGCGCCC
 TCAATCAGGTTTTCTTCGGTATCTTTGGATGGAGAGGAAGCTTTCTAATCTTGGGGCTTGTACTAAA
 CTGCTGTGTTGCTGGAGCCCTCATGCGACCAATCGGGCCCAAGCCAACCAAGGCAGGAAAGATAAGTCT
 AAAGCATCCCTTGAGAAAGCTGGAAAATCTGGTGTGAAAAAAGATCTGCATGATGCAAATACAGATCTTA
 TTGGAAGACACCCTAAACAAGAGAAACGATCAGTCTTCCAAACAATTAATCAGTTCCTGGACTTAACCTT
 ATTCACCCACAGAGGCTTTTTGCTATACCTCTCTGAAAATGTGATCATGTTTTTTGGACTCTTTCACCT
 TTGGTGTCTTCTAGTAGTTATGGGAAGAGTCAGCATTATCTAGTGAGAAGTCTGCCTTCTCTTTTCCA
 TTCTGGCTTTTGTGACATGGTAGCCCGACCATCTATGGGACTTGTAGCCAACACAAAGCCAATAAGACC
 TCGAATCAGTATTTCTTGGCGCTTCCGTTGTTGCAAATGGAGTGTGCATATGCTAGCACCTTTATCC
 ACTACCTATGTTGATTCTGTGTCTATGCGGGATTCTTTGGATTGCTTTCGGTGGCTCAGCTCCGAT
 GTTTTGAACATTGATGGACCTTGTGGACCCAGAGGTTCTCCAGCGCTGTGGGATTGGTGACCATTTG
 GGAATGCTGTCTCTCTGGGGCCACCACTTTTAGGTCGGCTCAATGACATGTATGGAGACTACAAA
 TACACATACTGGGCATGTGGCGTCGTCCTAATTATTTAGGTATCTATCTCTTATTGGCATGGGCATCA
 ATTATCGACTTTTGGCAAAGAACAGAAAGCAAACGAGCAGAAAAAGGAAAGTAAAGAGGAAGAGACCAG
 TATAGATGTTGCTGGGAAGCCAAATGAAGTTACCAAAGCAGCAGAATCTCCAGACCAGAAAGACACAGAT
 GGAGGGCCCAAGGAGGAGAAAGTCCAGTC

**ACGGTACGGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA**

Protein Sequence:

>RC205213 protein sequence
 Red=Cloning site Green=Tags(s)

MPPAVGGPVGYTPPDGGWGWAVVIGAFISIGFSYAFPKSITVFFKEIEGIFHATTSEVSWISSIMLAVMY
 GGGPISSILVNKYGSRIVMIVGGCLSGCGLIAASFCNTVQQLYVCIGVIGLGLAFNLPALTMIGKYFY
 KRRPLANGLAMAGSPVFLCTLAPLNQVFFGIFGWRGSFLILGLLNCCVAGALMRPIGPKPTKAGDKS
 KASLEKAGKSGVKKDLHDANTDLIGRHPKQEKRSVFQTNQFLDLTLFTHRGFLLYLSGNVIMFFGLFAP
 LVFLSSYGKSQLYSSEKSAFLLSILAFVDMVARPSMGLVANTKPIRPRIQYFFAASVVANGVCHMLAPLS
 TTYVGFVYAGFFGAFGWLSSVLFETLMDLVGPQRFSSAVGLTIVECCPVLLGPPLLGRNDMYGDYK
 YTYWACGVVLIISGIYLFIMGINYRLLAKEQKANEQKESKEEETSIDVAGKPNVTKAAESPDQKDTD
 GGPKEEESPV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

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

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_003051

ORF Size: 1500 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_003051.4](#)

RefSeq Size: 3927 bp

RefSeq ORF: 1503 bp

Locus ID: 6566

UniProt ID: [P53985](#)

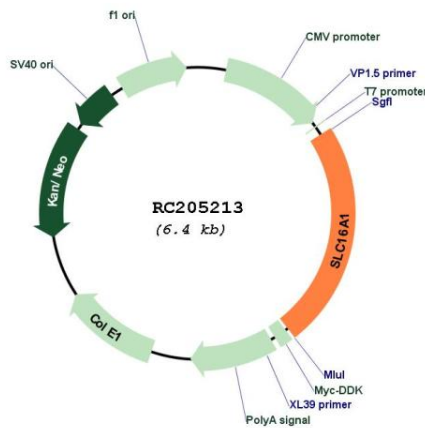
Cytogenetics: 1p13.2

Protein Families: Transmembrane

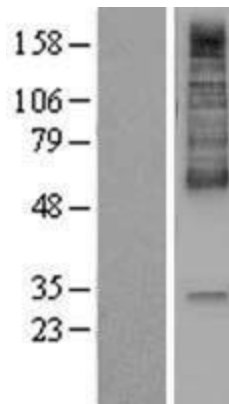
MW: 53.9 kDa

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]

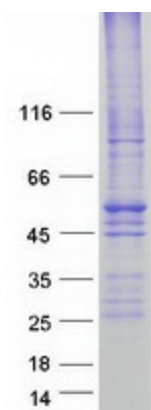
Product images:



Circular map for RC205213



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]).



Coomassie blue staining of purified SLC16A1 protein (Cat# [TP305213]). The protein was produced from HEK293T cells transfected with SLC16A1 cDNA clone (Cat# RC205213) using MegaTran 2.0 (Cat# [TT210002]).