

## Product datasheet for **RC225845**

### **SLC39A14 (NM\_001128431) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SLC39A14 (NM_001128431) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC39A14
Synonyms:	cig19; HCIN; HMNDYT2; LZT-Hs4; NET34; ZIP14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC225845 representing NM\_001128431  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAAGCTGCTGCTGCTGCACCCGGCCTCCAGAGCTGCCTCCTGCTGACCTGCTTGCTTATGGAGAA  
 CCACCCCTGAGGCTCACGCTTATCCCTGGGTGCCACAGCTATCAGCGCTGCCTCCTTCCTGCAGGATCT  
 AATACATCGGTATGGCGAGGGTGACAGCCTCACTCTGCAGCAGCTGAAGGCCCTACTCAACCACCTGGAT  
 GTGGGAGTGGGCCGGGTAATGTCACCCAGCACGTGCAAGGACACAGAACCTCTCCACGTGCTTTAGTT  
 CTGGAGACCTTCTACTGCCACAATTTAGCGAGCAGTCGCGGATTGGGAGCAGCGAGCTCCAGGAGTT  
 CTGCCCCACCATCTCCAGCAGCTGGATTCCCGGGCTGCACCTCGGAGAACCAGAAAACGAGGAGAAT  
 GAGCAGACGGAGGGGGCGCCAAGCGCTGTTGAAGTGTGGGGATACGGTCTCCTCTGTGTACCGTCA  
 TCTCCCTCTGCTCCCTCTGGGGCCAGCGTGGTCCCTCATGAAGAAGACCTTTACAAGAGGCTGCT  
 GCTCTACTTCATAGCTCTGGCGATTGGAACCTCTACTCCAACGCCCTTCCAGCTCATCCCGGAGGCA  
 TTTGGTTTCAACCTCTGGAAGATTATTATGTCTCCAAGTCTGCAGTGGTGGTGGGGCTTTTATCTTT  
 TCTTTTTCACAGAGAAGATCTTGAAGATTCTTCTTAAGCAGAAAAATGAGCATCATGACACAGCCA  
 TTATGCCTCTGAGTCGTTCCCTCCAAGAAGACCAGGAGGAGGGGGTGTGGAGAAGCTGCAGAACGGG  
 GACCTGGACCACATGATTCTCAGCACTGCAGCAGTGAAGTGGACGGCAAGGCGCCCATGGTGGACGAGA  
 AGGTCATTGTGGGCTCGCTCTCTGTGCAGGACCTGCAGGCTTCCAGAGTGTGCTACTGGCTGAAAGG  
 TGTCGGTACTCTGATATCGGCACTCTGGCCTGGATGATCACTCTGAGCGACGGCCTCCATAATTTATC  
 GATGGCTGGCCATCGGTGCTTCTTCACTGTGTCAAGTTCCTCAAGGCATCAGCACCTCGGTGGCCATCC  
 TCTGTGAGGAGTTCCACATGAGCTAGGAGACTTGTGTCATCTGCTCAACGCTGGGATGAGCATCCAACA  
 AGCTCTTCTTCAACTTCTTCTGCTGCTGCTACCTGGTCTGGCCTTTGGCATCTCGCCGGC  
 AGCCACTTCTCTGCAACTGGATTTTGCCTAGCTGGAGGAATGTTCTGTATATTTCTCTGGCTGATA  
 TGTTCCCTGAGATGAATGAGGTCTGTCAAGAGGATGAAAGGAAGGGCAGCATCTTGATTCCATTTATCAT  
 CCAGAACCTGGGCTCCTGACTGGATTACCATCATGGTGGTCTCACCATGTATTCAGGACAGATCCAG  
 ATTGGG

**ACGGTACGGCGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT**  
**ACAAGGATGACGACGATAAGGTTTAA**

**Protein Sequence:**

>RC225845 representing NM\_001128431  
 Red=Cloning site Green=Tags(s)

MKLLLLHPAFQSCLLLTLGLWRTTPEAHASSLGAPISAASFLQDLIHRVYEGDLSLTLQQLKALLNHL  
 VGVGRGNVTQHVQGHRNLSTCFSSGDLFTAHNSEQSRIGSSELQEFPTILQQLDSRACTSENQENEEN  
 EQTEEGRPSAVEVWGYLLCVTVISLCSLLGASVVPFMKTFYKRLLLYFIALAIGTLYSNALFQLIPEA  
 FGFNPLEDYVYSKSAVVFVGGFYLFVTEKILKILLKQKNEHHHGHSHYASESLPSKKDQEEGVMEKLQNG  
 DLDMIPQHCSSELDGKAPMVDEKVIIVGSLSVQDLQASQSACYWLKGVRYSDIGTLAWMITLSDGLHNF  
 DGLAIGASFTVSVFQGISVAILCEEPHELDFVILLNAGMSIQQALFFNFLSACCCYLGLAFGLAG  
 SHFSANWIFALAGGMFLYISLADMFPENNEVCQEDERKGSILIPFIIQNLGLLTGFTIMVVLTMYSQIQ  
 IG

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_001128431

ORF Size: 1476 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](mailto: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).

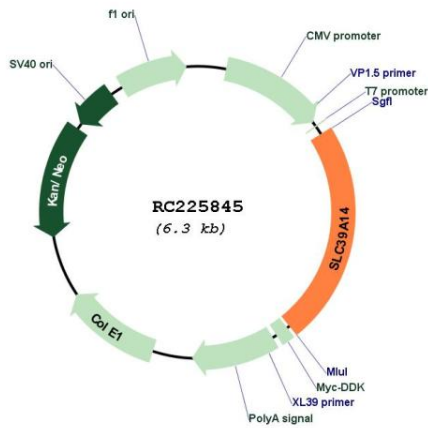
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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\\_001128431.4](#)

RefSeq ORF: 1479 bp  
 Locus ID: 23516  
 UniProt ID: [Q15043](https://www.uniprot.org/entry/Q15043)  
 Cytogenetics: 8p21.3  
 Protein Families: Transmembrane  
 MW: 54 kDa

**Gene Summary:** This gene encodes a member of the the SLC39A family of divalent metal transporters that mediates the cellular uptake of manganese, zinc, iron, and cadmium. The encoded protein contains eight transmembrane domains, a histidine-rich motif, and a metalloprotease motif, and is expressed on the plasma membrane and the endocytic vesicle membrane. It is an important transporter of nontransferrin-bound iron and a critical regulator of manganese homeostasis. Naturally occurring mutations in this gene are associated with neurodegeneration with brain iron accumulation and early-onset parkinsonism-dystonia with hypermanganesemia. [provided by RefSeq, May 2017]

**Product images:**



Circular map for RC225845