

Product datasheet for **RG225845**

SLC39A14 (NM_001128431) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC39A14 (NM_001128431) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC39A14
Synonyms:	cig19; HCIN; HMNDYT2; LZT-Hs4; NET34; ZIP14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG225845 representing NM_001128431
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGCTGCTGCTGCTGCACCCGGCCTCCAGAGCTGCCTCCTGCTGACCTGCTTGCTTATGGAGAA
 CCACCCCTGAGGCTCACGCTTATCCCTGGGTGCCACAGCTATCAGCGCTGCCTCCTCCTGCAGGATCT
 AATACATCGGTATGGCGAGGGTGACAGCCTCACTCTGCAGCAGCTGAAGGCCCTACTCAACCCACTGGAT
 GTGGGAGTGGGCCGGGTAATGTCACCCAGCACGTGCAAGGACACAGAACCTCTCCACGTGCTTTAGTT
 CTGGAGACCTTCTACTGCCACAATTTAGCGAGCAGTCGCGGATTGGGAGCAGCAGCTCCAGGAGTT
 CTGCCCCACCATCTCCAGCAGCTGGATTCCCGGGCCTGCACCTCGGAGAACCAGGAAAACGAGGAGAAT
 GAGCAGACGGAGGGGGCGCCAAGCGCTGTTGAAGTGTGGGGATACGGTCTCCTCTGTGTACCGTCA
 TCTCCCTCTGCTCCCTCTGGGGCCAGCGTGGTCCCTCATGAAGAAGACCTTTACAAGAGGCTGCT
 GCTCTACTTCATAGCTCTGGCGATTGGAACCTCTACTCCAACGCCCTTCCAGCTCATCCCGGAGGCA
 TTTGGTTTCAACCTCTGGAAGATTATTATGTCTCCAAGTCTGCAGTGGTGGTGGGGGCTTTATCTTT
 TCTTTTTCACAGAGAAGATCTTGAAGATTCTTCTTAAGCAGAAAAATGAGCATCATGACACAGCCA
 TTATGCCTCTGAGTCGTTCCCTCCAAGAAGACCAGGAGGGGGTGGTGGAGAAGCTGCAGAACGGG
 GACCTGGACCACATGATTCTCAGCACTGCAGCAGTGAAGTGGACGGCAAGGCGCCCATGGTGGACGAGA
 AGGTCAATGTGGGCTCGCTCTGTGTCAGGACCTGCAGGCTTCCAGAGTGGTGGTACTGGCTGAAAGG
 TGTCCGCTACTCTGATATCGGCACTCTGGCCTGGATGATCACTCTGAGCGACGGCCTCCATAATTTATC
 GATGGCCTGGCCATCGGTGCTTCTTCACTGTGTCAGTTTTCCAAGGCATCAGCACCTCGGTGGCCATCC
 TCTGTGAGGAGTTCCACATGAGCTAGGAGACTTGTGTCATCTGCTCAACGCTGGGATGAGCATCCAAC
 AGCTCTTCTTCAACTTCTTCTGCTGCTGCTACCTGGTCTGGCCTTTGGCATCCTGGCCGGC
 AGCCACTTCTCTGCAACTGGATTTTTGCGCTAGCTGGAGGAATGTTCTGTATATTTCTCTGGCTGATA
 TGTTCCCTGAGATGAATGAGGTCTGTCAAGAGGATGAAAGGAAGGGCAGCATCTTGATTCCATTTATCAT
 CCAGAACCTGGGCTCCTGACTGGATTCACCATCATGGTGGTCTCACCATGTATTCAGGACAGATCCAG
 ATTGGG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG225845 representing NM_001128431
 Red=Cloning site Green=Tags(s)

MKLLLLHPAFQSCLLLTLGLWRTTPEAHASSLGAPAI SAASFLQDLI HRYGEGDSLTLQQLKALLNHL D
 VGVGRGNVTQHVGHRNLSTCFSSGDLFTA HNFSEQSRIGSSELQEF CPTILQQLDSRACTSENQENEEN
 EQTEEGRPSAVEVWGYGLLCVTVISLCSLLGASVVPFMKKT FYKRLLLYFIALAIGTLYSNALFQLIPEA
 FGFNPLEDYVSKSAVVFGGFYLFFTEKILKILLKQNEHHHGHSHYASESLPSKKDQEEGVMEKLQNG
 DLDMIPQHCSSELDGKAPMVDEKVI VGSLSVQDLQASQSACYWLKGVRYSDIGTLAWMITLSDGLHNF I
 DGLAIGASFTVSVFQGI STSVAILCEEFPHELGD FVILLNAGMSIQQALFFNLSACCCYLGLAFGILAG
 SHFSANWIFALAGMFLYISLADMFP EMNEVCQEDERKGSILIPFIIQNLGLLTGFTIMVVL TMSGQIQ
 IG

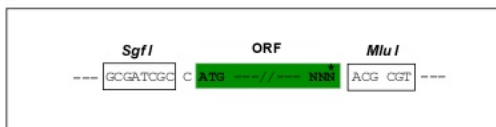
TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shutting:



CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

EcoR I *BamH I* *Kpn I* RBS *Kozac Consensus* *Sgf I* *Asc I*

Hind III *Nhe I* *Rsr II* *Mlu I* *Not I* *Xho I* GFP Tag

CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC - - - - -

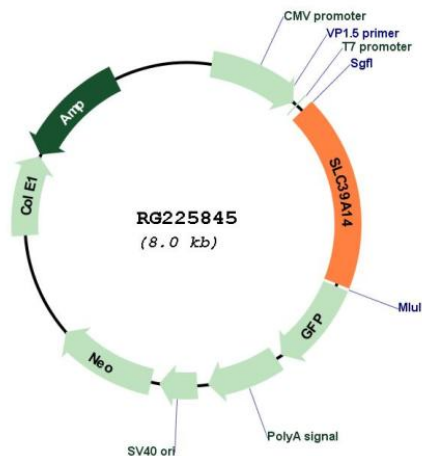
 T R T R P L E M E S D - - -

Pme I *Fse I*

- - - - - GAA GAA AGA GTT TAA ACGGCCGGCCGGAGCT

- - - E E R V Stop

Plasmid Map:



ACCN: NM_001128431

ORF Size: 1476 bp

OTI Disclaimer:	<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 custsupport@origene.com 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. More info</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<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>
Reconstitution Method:	<ol style="list-style-type: none">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:	<p>NM_001128431.4</p>
RefSeq Size:	<p>4699 bp</p>
RefSeq ORF:	<p>1479 bp</p>
Locus ID:	<p>23516</p>
UniProt ID:	<p>Q15043</p>
Cytogenetics:	<p>8p21.3</p>
Protein Families:	<p>Transmembrane</p>
Gene Summary:	<p>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]</p>