

Product datasheet for **RC214417**

HCP1 (SLC46A1) (NM_080669) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HCP1 (SLC46A1) (NM_080669) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HCP1
Synonyms:	G21; HCP1; PCFT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214417 representing NM_080669
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGGGGAGCGCGAGCCCCCGAAAAGCCCCGCGCCCGCCCTGCGGGTGCCGTGCTGTGCCGGGGCC
 CGGTAGAGCCGCTGGTCTTCTGGCCAACCTTGCCTTGGTCTGCAGGGCCCGCTCACCACGCAGTATCT
 GTGGCACCGCTTACGCGCCGACCTCGGCTACAATGGCACCCGCCAAAGGGGGGGTGCAGCAACCGCAGC
 GCGGACCCACCATGCAGGAAGTGGAGACCCTTACCTCCCACTGGACCCTCTACATGAACGTGGGCGGT
 TCCTGGTGGGGCTCTTCTCGTCCACCCTGCTGGGAGCTTGGAGCGACAGTGTGGGCCGCCCGCCGCTGCT
 AGTGTGGCCTCGCTGGCCTGCTGCTCCAGGCCCTAGTGTCCGTTTTTGGTGCAGCTGCAGCTCCAC
 GTCGGCTACTTCGTGCTGGTTCGCATCCTTTGTGCCCTCTCGGCGACTTCGGTGGCCTTCTGGCTGCTA
 GCTTTGCGTCCGTGGCAGATGTCAGCTCCAGTGCAGCCGCACCTCCGGATGGCCCTGCTAGAAGCCAG
 CATCGGGTGGCTGGGATGCTGGCAAGCCTCCTCGGGGGCCACTGGCTCCGGGCCAGGGTTATGCCAAC
 CCCTTCTGGCTGGCCTTGGCCTTCTGATAGCCATGACTCTCTATGCAGCTTTCTGCTTTGGTGAGACCT
 TAAAGGAGCCAAAGTCCACCCGGCTCTTACGTTCCGTACCACCGATCCATTGTCCAGCTCTATGTGGC
 TCCCGCCCCAGAGAAGTCCAGGAAACATTTAGCCCTCTACTACTGGCCATCTTCGTGGTGGTACTGTG
 CACTTTGGGGCCAGGACATCTTAACCTTTATGAACAAAGCACACCCCTCTGCTGGGACTCCAAACTAA
 TCGGCTATGGTTCTGCAGCTCAGCATCTCCCTACCTCACCAGCCTGCTGGCCCTGAAGCTCCTGCAGTA
 CTGCCTGGCCGATGCCTGGTAGCTGAGATCGGCTGGCCTCAACATCCTGGGGATGGTGGTCTTTGCC
 TTTGCCACTATCACGCCCTCATGTTACAGGATATGGGTTGCTTTTCTGTCTATTAGTCATCACACCTG
 TCATCCGGGTAACCTTCCAAGCTGGTGGAGAGAGAGAGCAGGAGGCTCTCTTTTCTGTGTGGCCTG
 TGTGAATAGCCTGGCCATGCTGACGGCCTCCGGCATCTTCAACTACTCTACCCAGCCACTCTGAACCTT
 ATGAAGGGGTTCCCTTCTCCTGGGAGCTGGCCTCTGCTCATCCCGGCTGTTCTGATTGGGATGCTGG
 AAAAGGCTGATCCTCACCTCGAGTTCAGCAGTTCCCGAGGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214417 representing NM_080669
 Red=Cloning site Green=Tags(s)

MEGSASPPEKPRARPAAVLCRGPVEPLVFLANFALVLQGPLTTQYLWHRFSADLGYNGTRQRGGCSNRS
 ADPTMQEVETL TSHWTL YMNVGFLVGLFSSTLLGAWSDSVGRRPLLVLASLGLLLQALVSFVVQLQLH
 VGYFVLGRILCALLGDFGLLAASFASVADVSSRSRTRFRMALLEASIGVAGMLASLLGGHWRAGQYAN
 PFWLALALLIAMTLYAAFCEGTLKEPKSTRLFTRHRSIVQLYVAPAPEKSRKHLALYSLAIFVVITV
 HFGAQDILTLYELSTPLCWDSLIGYGSAAQHLPYLTSLLALKLLQYCLADAWVAEIGLAFNILGMVFA
 FATITPLMFTGYLLFLSLVITPVIRAKLSKLVRETEQGALFSAVACVNSLAML TASGIFNSLYPATLNF
 MKGFPFLLGAGLLLIPAVLIGMLEKADPHLEFQQFPQSP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/ja1162_h07.zip

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:


ACCN: NM_080669

ORF Size: 1377 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_080669.2](#), [NP_542400.2](#)

RefSeq Size: 6510 bp

RefSeq ORF: 1380 bp

Locus ID: 113235

UniProt ID: [Q96NT5](#)

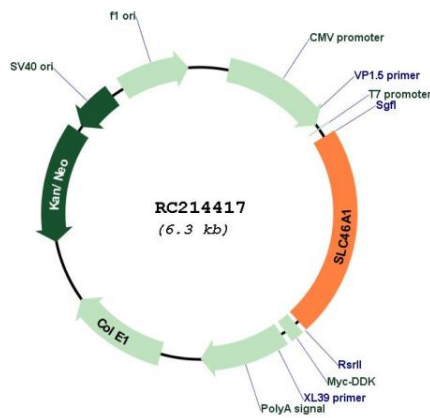
Cytogenetics: 17q11.2

Protein Families: Transmembrane

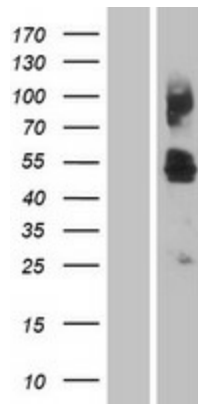
MW: 49.8 kDa

Gene Summary: This gene encodes a transmembrane proton-coupled folate transporter protein that facilitates the movement of folate and antifolate substrates across cell membranes, optimally in acidic pH environments. This protein is also expressed in the brain and choroid plexus where it transports folates into the central nervous system. This protein further functions as a heme transporter in duodenal enterocytes, and potentially in other tissues like liver and kidney. Its localization to the apical membrane or cytoplasm of intestinal cells is modulated by dietary iron levels. Mutations in this gene are associated with autosomal recessive hereditary folate malabsorption disease. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Aug 2013]

Product images:



Circular map for RC214417



Western blot validation of overexpression lysate (Cat# [LY409054]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214417 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).