

Product datasheet for **RC217620**

SLC5A8 (NM_145913) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	SLC5A8
Synonyms:	AIT; SMCT; SMCT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



ORF Nucleotide Sequence: >RC217620 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGACACGCCACGGGCATCGGCACCTTCGTGGTGTGGGACTACGTGGTGTTCGGGGCATGCTGGTCA
 TCTCGGCCGCCATCGGCATCTACTACGCCTTCGCTGGGGCGGCCAGCAGACCTCCAAGGACTTCCTGAT
 GGGCGGCCGAGAATGACCGCAGTGCCCGTGGCGCTGTCCCTCACCCTAGCTTCATGTACGCCGCTCACT
 GTCTGGGCACCCCTCCGAGGTCTACCGTTTTGGGGCATTTCATGCTTCCTTACCTACTTCT
 TTGTTGGTGGTATCAGCGCGGAGGTCTTCTCCCGTGTCTACAACTGGGAATTACCAGCACCTACGA
 GTATTTAGAACTTCGATTAAACAAATGTGTTTCGTCTCTGTGGAACAGTCCTTTCATTGTTCAAACAATT
 CTGTATACTGGAATTGTTATTTATGCCCTGCCCTGGCTTTGAATCAAGTCACAGGATTTGATCTGTGGG
 GCGCGGTAGTGGCAACGGGGTGGTCTGCACATTCTACTGCACACTGGTGGTCTTAAAGCAGTTATCTG
 GACAGATGTTTTCAAGTTGGGATCATGGTGGCTGGATTTGCATCCGTGATTATACAGGCTGTGGTGATG
 CAAGGTGGAATCAGCACTATTTTAAATGATGCCTATGATGGTGGAAGATTAAATTTCTGGAATTTAATC
 CTAACCCCTTTGCAAGACACACCTTCTGGACAATTATTATAGGAGGGACCTTCACATGGACCAGCATCTA
 CGGTGTCAACCAATCCCAGGTGCAGAGATATTTCTGTAAAAGCAGATTCCAGGCAAACTGTCTCTC
 TACATCAATCTTGTGGGACTCTGGGCAATCCTCATGCTCAGTGTTCCTGGGCTCGCCCTATATTCCA
 GGTACCATGACTGTGATCCTTGGACAGCCAAGAAAGTCTCTGCACAGACCAGCTCATGCCTTATTGGT
 ACTGGACATTCTGCAAGATTATCCAGGACTTCTGGACTTTTTGTGGCCTGTGCTTACAGTGGGACATTA
 AGCACAGTGTCTCCAGTATTAATGCCTTAGCAGCAGTAACTGTGGAAGATCTAATCAAACCTTACTTCA
 GATCGCTCTCAGAAAGGTCTCTGTCTGGATTTCCCAAGGAATGAGTGTGGTGTATGGAGCCCTGTGAT
 TGGAATGGCTGCGCTGGCGTCACTTATGGGAGCTTTGTTGACGGCAGCACTCAGCGTATTTGGTATGGTT
 GGTGGACCACTTATGGGCTGTTCGCTTTGGGCATTTTGGTTCCTTTGCCAATCAATTGGAGCACTTG
 TTGGTCTGATGGCTGGATTGGCATTCTCTATGGGTGGAATTGGAGCTCAAATATATCTCCACTTCC
 TGAGAGAACATTGCCATTGCACCTTGATATCCAAGGCTGTAAACAGCACCTACAATGAGACAAATTTGATG
 ACAACCACAGAAATGCCATTTACTACTAGTGTTCCTTCAATATACAATGTTCAAAGGACTCCACTGATGG
 ATAAGTGGTATTCTTTATCATATCTGACTTCAGCACTGTTGGAACCTTTGGTAACATTATTAGTGGGGAT
 ACTTGTGAGTTTATCAACAGGAGGAAGAAAACAGAACTTAGACCCAGATATATACTAACCAAGAGGAC
 TTTTATCCAATTTGATATTTTAAAGAAAAGAGCATGTTTGGAGCTATAAATCACATCCAGTGAAG
 ATGGTGAAGTATAATCCTGCTTCAACCACATTGAATTGAACTCAGATCAGAGTGGAAGAGCAATGG
 GACTCGTTTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC217620 protein sequence
 Red=Cloning site Green=Tags(s)

MDTPRGIGTFVVDYVVFAGMLVISAAIGIYYAFAGGQQTSKDFLMGRRMTAVPVALSLTASFMSAVT
 VLGTPSEVYRFGAIFSIFAFTYFFVVVISAEVFLPVFYKLGITSTYEYELRNFNKCVRLCGTVLFIVQTI
 LYTGIYIYAPALALNQVTGFDLWGAVVATGVVCTFYCTLGGLKAVIWDVVFQVGIMVAGFASVIIQAVVM
 QGGISTILNDAYDGGRLNFWNPNPLQRHTFWTIIIGGFTWTSIYGVNQSQVQRYISCKSRFQAKLSL
 YINLVGLWAILTCSVFCGLALYSRYHDCDPWTAKKVSAPDQLMPYLVDILQDYPGLPGLFVACAYSGTL
 STVSSSINALAAVTVEDLIKPYFRSLSERLSWISQGMSSVYVYALCIGMAALASLMGALLQAALSVMV
 GGPLMGLFALGILVPFANSIGALVGLMAGFAISLVWIGAIYPPPERTLPLHLDIQCNSYNETNLM
 TTTEMPFTTSVFIYNVQRTPLMDNWYSLSYLYFSTVGTLLVGLVSLSTGGRKQNLDPRIYLTKEK
 FLSNFDIFKKKKHVL SYKSHPVEDGGTDNPAFNHIELNSDQSGKSNGTRL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6458_c12.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_145913

ORF Size: 1830 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.

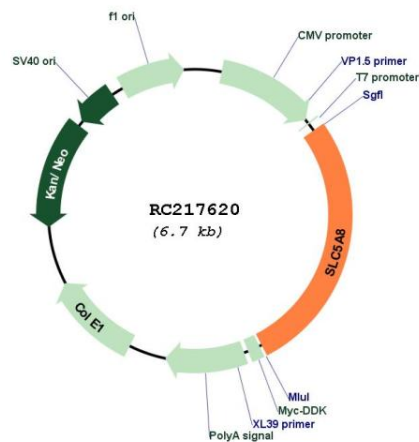
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_145913.5](#)

RefSeq Size: 3286 bp

RefSeq ORF:	1833 bp
Locus ID:	160728
UniProt ID:	Q8N695
Cytogenetics:	12q23.1-q23.2
Domains:	SSF
Protein Families:	Transmembrane
MW:	66.6 kDa
Gene Summary:	SLC5A8 has been shown to transport iodide by a passive mechanism (Rodriguez et al., 2002 [PubMed 12107270]) and monocarboxylates and short-chain fatty acids by a sodium-coupled mechanism (Gopal et al., 2004 [PubMed 15322102]). In kidney, SLC5A8 functions as a high-affinity sodium-coupled lactate transporter involved in reabsorption of lactate and maintenance of blood lactate levels (Thangaraju et al., 2006 [PubMed 16873376]).[supplied by OMIM, Dec 2008]

Product images:



Circular map for RC217620

Western validation with an anti-DDK antibody
* L: Control HEK293 lysate R: Over-expression lysate