

Product datasheet for **RC214466**

SLC16A2 (NM_006517) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC16A2 (NM_006517) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC16A2
Synonyms:	AHDS; DXS128; DXS128E; MCT 7; MCT7; MCT 8; MCT8; MRX22; XPCT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214466 representing NM_006517
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGGGAGAGGAGAGGGGGTGGACGTGGGAGGAGGAGAGGGCTCGAGGGACCGTCTGTCCGGG
 ACGGGCTGGCCAGCTGGGGCGCGAGCCTGGAGGAGGAGCAGCGGCAGCGCAGCAGCCCTCCGAG
 CAGCAGCAGCTGCAGCAGCAGAAACAAGTACCAGCCACAAGCGGCTCCTCTGGCCAAAGCAGCCACAGT
 CCCCCCGCGGATGGCGCTGCAAAGCCAGGCGAGCGAGGAAGCAAAGGGGCCCTGGCAGGAGCAGACC
 AGGAACAGCAGGAGCCGGTGGGTAGCCCAGAGCCGGAGTCTGAGCCGGAGCCTGAGCCCAGCCCAGCC
 CGTGCCAGTGCCTCCGAGCCCGAGCCCAGCCGGAGCCCAGCCCCACGGACCCCGACCCCTGCCGGAG
 CTGGAGTTCGAGTCGAGCGGGTGCACGAACCCGAGCCACGCCCTACGGTAGAGACCCGCGGCACCCGCG
 GCGGCTCCAGCCTCCGAAGTGGCTTCGGCTGGTGGTGTTCGTCGCCACCTGGTCAACGGCTC
 CATCTTCGGCATCCATACTCTGTCCGGATCCTCTACTCCATGCTGCTAGAGGAGAAAAGAAAAAAT
 CGCAAGTGGAGTCCAAGCAGCATGGGTCCGAGCCCTCGCGATGGGTATGATCTTCTTCTGTTCTCCCA
 TTGTGAGTATATCACTGACCGTTTGGGCTGCCGAATCACAGCAACCGGGGGGCTGCCGTTGCTTTCAT
 TGGCTCCATACCAGCTCCTTACCAGCTCCCTAAGCCTGCGCTACTTACCTACGGGATTCTCTTGGT
 TGTGGCTGTTCTTCGCTTTCAGCCATCCCTCGTCATCTGGGCCACTACTTCAACGCCGCTGGGTC
 TGGCAATGGTGTGGTGTCTGCTGGGAGTAGCATTCTCCATGTCCTTCCCCTTCTCATCAGAATGCT
 GGGGATAAGTCAAGCTGGCCAAACCTTCCAGTGTGAGTACCTTATGTTTCTTATGCTGCTT
 TCACTCACCTACCGCCCTCCTGCCAGCTCCCAGGACCCCAAGCAAGAGAGGTGTCGACCCCTGC
 ACCAGCGCTTTCGGCTCAGCTCAGGAAGTACTTCAACATGCGAGTGTTCGCCCAACGCACTTACCGCAT
 CTGGGCCTTCGGAATTGCTGCTGCTGCCCTGGCTACTTGTTCCTATGTACACCTGATGAAGTATGTG
 GAGGAGGAGTTCTCAGAAATCAAGGAGACCTGGGTGCTTGGTGTGATTGGGGCTACCTCAGGCCTTG
 GGCTCTGTGTCAGGCCACATCAGTACTCCCTGGACTTAAAGAAGATCTACTTGCAGGTCCTTTC
 CTCTGCTCCTGGGCTGATGTCCATGATGATCCCCTGTGCCGGGACTTCGGGGGCTTATCGTCGTC
 TGTCTTTCTGGGCTTTCGATGGCTTCTTATCACCATCATGGCCCCATTGCATTTGAGCTGGTGG
 GCCAATGCAGGCCTCACAGGCATTGGCTACCTCCTGGCATGATGGCCCTGCCAATGATTGCTGGGCC
 CCCATTCGAGGCCTACTCCGCACTGTTTGGGGACTACCATGTGCCCTTCTACTTTGCCGGTGTGCC
 CCCATCATCGGGCTGTAATCCTTCTTTCGTCCTCTGATGCATCAAAGGATGTTCAAAGAAAGAGCAGA
 GAGATTCAGCAAGGATAAGATGTTGGCCCTGACCCAGACCCCAATGGGGAGCTACTGCCGGGCTCCCC
 CAACCCTGAGGAACCAAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTAA

Protein Sequence:

>RC214466 representing NM_006517
 Red=Cloning site Green=Tags(s)

MGRGGGLDVGGGEGSRDRLSRDGLASWGAEPGGGGSGSSSPSSSSCSRNYQPQSGSSGSPSSHS
 PPAAMALQSQASEEAKGPWQEQADQEQEPVGSPEPESEPEPEPEPVPVPPPEPQPLPDPAPLPE
 LEFESERVHEPEPTPTVETRGTARGFQPPEGGFWVVVFAATWCNGSIFGIHNSVGLYSMLLEEKEKN
 RQVEFQAAWVGLAMGMIFFCSPIVSIFTDRLGCRITATAGAAVAFIHLHTSSFTSSLRYFTYILFG
 CGCSFAFQPSLVILGHYFQRRLLGLANGVVSAGSSIFSMSFPFLIRMLGDKIKLAQTFQVLSTFMFLMLL
 SLTYRPLLPSQDTPSKRGVRTLHQRFLAQLRKYFNMRVFRQRTYRIWAFGIAAAALGYFVYVHLMKYV
 EEFSEIKETWLLVCIGATSGLRGLVSGHISDSIPGLKKIYLQVLSFLLLGLMSMIPLCRDFGLIVV
 CLFLGLCDGFFITIMAPIAFELVGPMAQSAIGYLLGMMALPMIAGPPIAGLLRNCFGDYHVAFYFAGVP
 PIIGAVILFFVPLMHQRMFKKEQRDSSKDKMLAPDPDPNGELLPSPNPEEPI

TRTRPLEQKLISEEDLAANDILDYKDDDDKVV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006517

ORF Size: 1839 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 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_006517.3](#)

RefSeq Size: 4401 bp

RefSeq ORF: 1620 bp

Locus ID: 6567

UniProt ID: [P36021](#)

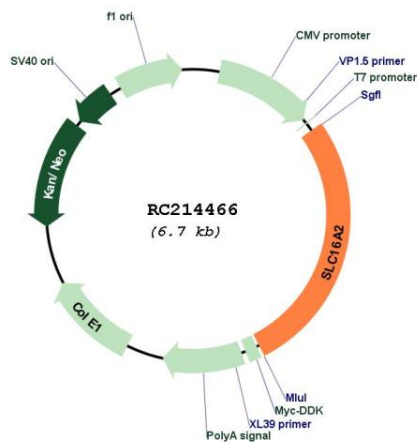
Cytogenetics: Xq13.2

Protein Families: Transmembrane

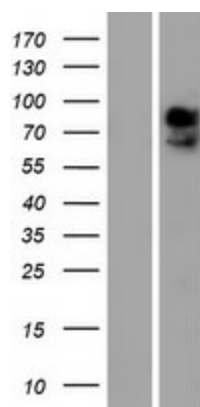
MW: 66.2 kDa

Gene Summary: This gene encodes an integral membrane protein that functions as a transporter of thyroid hormone. The encoded protein facilitates the cellular importation of thyroxine (T4), triiodothyronine (T3), reverse triiodothyronine (rT3) and diiodothyronine (T2). This gene is expressed in many tissues and likely plays an important role in the development of the central nervous system. Loss of function mutations in this gene are associated with psychomotor retardation in males while females exhibit no neurological defects and more moderate thyroid-deficient phenotypes. This gene is subject to X-chromosome inactivation. Mutations in this gene are the cause of Allan-Herndon-Dudley syndrome. [provided by RefSeq, Mar 2012]

Product images:



Circular map for RC214466



Western blot validation of overexpression lysate (Cat# [LY416594]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214466 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).