

Product datasheet for **RC206409**

SLC19A3 (NM_025243) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SLC19A3 (NM_025243) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SLC19A3
Synonyms:	BBGD; THMD2; thTr-2; THTR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC206409 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGATTGTTACAGAACTTCACTAAGCAGTTCCTGGATTTACCCACTGTGATCCTCTGCTTATTTGGTT
 TTTTCTCCATGATGAGACCCTCAGAACCGTTCCTTATCCCATATTTATCTGGACCAGATAAAAACTGAC
 CAGTGCAGAGATAACAAATGAGATCTTCCCGTTTGGACATACTCCTACCTGGTGTCTGCTGCCTGTG
 TTTGTCCTCACCGATTATGTCGGCTACAAGCCAGTCATCATCTTGCAAGGTATCAGTTTCATCATTACCT
 GGCTGCTGCTGTTGTTGGCCAAGGAGTGAAGACCATGCAGGTTGTAGAGTTCTTCTATGGGATGGTCAC
 CGCCGCCGAGGTGGCCTACTACGCCTACATATACAGCGTGGTCAAGCCGAGCACTACCAGAGAGTGAGC
 GGCTACTGCAGGAGCGTCAGCTGGCCGCCTACACAGCAGGTCGGTGTGGCTCAACTCTTGGTATCCC
 TGGCGAACATGTCGTACTTTACCTCAACGTATATCCTTGGCCTCTGTCTCCGTGGCTTCTCTTTCTC
 ACTTTTCTACCAATGCCAAGAAAAGCATGTTTTTTTCATGCAAAACCCAGCAGAGAAAATAAGAAGTCA
 TCAAGCGTGAATCCAGTATTAGAGGAAACTCACGAAGGTGAAGCACCAGGCTGTGAAGAGCAGAAAACCA
 CATCAGAAATACTCAGCACTTCAAGGAAGCTGAATAAGGGCCAGCTGAACAGCCTGAAACCAAGCAATGT
 GACTGTGGACGTTTTTGTGCACTGGTCCAAAGATTTGAAGGAGTGTACTCCTCAAAACGCTTTTCTAC
 TGGTCTCTATGGTGGGCTTTCGCCACAGCAGGTTTTAACCAGGTTTTGAACTATGTTCAAATCCTGTGGG
 ATTACAAGGCGCCATCCCAAGATTTCCATCTATAATGGGGCCGTAGAAGCTATTGCAACCTTTGGAGG
 GGCTGTGGCTGCCTTTCAGTGGGTTATGTGAAAGTCACTGGGACCTTCTGGGAGAGCTGGCTCTGGTG
 GTCTTCTCAGTTGTCAATGCCGTTCTTTATTTCTCATGCATTACACAGCCAATATCTGGGCGTGCATG
 CTGGCTATTTGATATTCAGTCCAGCTATATGCTTCTTATAACCATAGCAGTATTTAGATTTGAGTTAA
 TCTGAATGTGGAACGCTATGCCTTGGTATTTGGAATCAACACCTTTATTGCCTTGGTGATTAGACCATC
 ATGACTGTGATTGTAGTAGATCAGAGAGGGCTCAACTGCCAGTCAAGTTCAGTTTTTAGTTTTATGGGA
 GCTATTTTGCAGTAATTGCTGGAATTTTCTAATGAGAAGCATGTATATTACCTACTCAACCAAATCCCA
 GAAGGATGTACAGAGCCCTGCTCCAAGTGAATCCAGATGTGTCTACCCAGAGGAAGAGAGTAATATC
 ATCATGTCAACAAAATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206409 protein sequence
 Red=Cloning site Green=Tags(s)

MDCYRTSLSSSWIYPTVILCLFGFFSMMRPSEPFLIPYLSGPDKNLTSAEITNEIFPVWYTSYLVLLLPLV
 FVLTDYVRYKPVIIILQISFIIITWLLLLFGQVKTMQVVEFFYGMVTAEEVAYYAYIYSVVSPEHYQRVS
 GYCRSVTLAAYTAGSVLAQLLVSLANMSYFYNVIVSLASVVAFLFSLFLPMPKSMFFHAKPSREIKKS
 SSVNPVLEETHEGEAPGCEEQKPTSEILSTSGKLNKQNLNSLKPSNVTVDVVFVQWFQDLKECYSSKRLFY
 WSLWWAFATAGFNQVLNYVQILWDYKAPSDSSIYNGAVEAIAATFGGAVAAFAVGYVKVNWDLGELALV
 VFSVNVNAGSLFLMHTANIWACYAGYLIFKSSYMLLITIAVFQIAVNLNVERYALVFGINTFIALVIQTI
 MTVIVVDQRGLNLPVSIQFLVYGSYFAVIAGIFLMRSMYITYSTKSQKDVQSPAPSENPDVSHPEEESNI
 IMSTKL

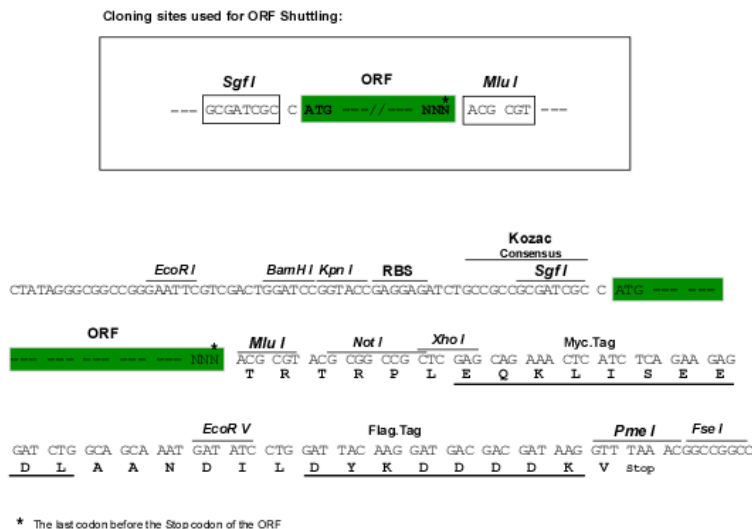
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6332_a01.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_025243

ORF Size: 1488 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_025243.4](#)

RefSeq Size: 3775 bp

RefSeq ORF: 1491 bp

Locus ID: 80704

UniProt ID: [Q9BZV2](#)

Cytogenetics: 2q36.3

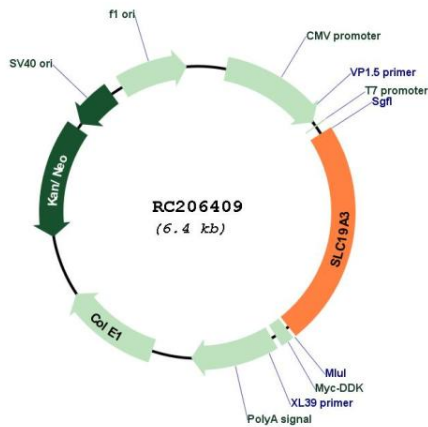
Domains: Folate_carrier

Protein Families: Transmembrane

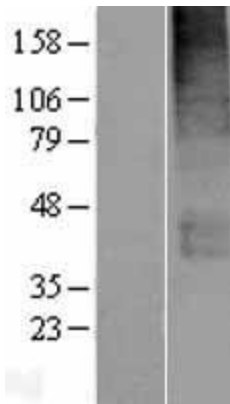
MW: 55.7 kDa

Gene Summary: This gene encodes a ubiquitously expressed transmembrane thiamine transporter that lacks folate transport activity. Mutations in this gene cause biotin-responsive basal ganglia disease (BBGD); a recessive disorder manifested in childhood that progresses to chronic encephalopathy, dystonia, quadriparesis, and death if untreated. Patients with BBGD have bilateral necrosis in the head of the caudate nucleus and in the putamen. Administration of high doses of biotin in the early progression of the disorder eliminates pathological symptoms while delayed treatment results in residual paraparesis, mild cognitive disability, or dystonia. Administration of thiamine is ineffective in the treatment of this disorder. Experiments have failed to show that this protein can transport biotin. Mutations in this gene also cause a Wernicke's-like encephalopathy.[provided by RefSeq, Jan 2010]

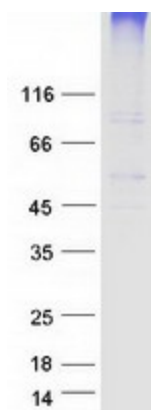
Product images:



Circular map for RC206409



Western blot validation of overexpression lysate (Cat# [LY410805]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206409 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SLC19A3 protein (Cat# [TP306409]). The protein was produced from HEK293T cells transfected with SLC19A3 cDNA clone (Cat# RC206409) using MegaTran 2.0 (Cat# [TT210002]).