

## Product datasheet for **RG206409**

### SLC19A3 (NM\_025243) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SLC19A3 (NM_025243) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC19A3
Synonyms:	BBGD; THMD2; thTr-2; THTR2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG206409 representing NM\_025243  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGATTGTTACAGAACTTCACTAAGCAGTTCCTGGATTTACCCCACTGTGATCCTCTGCTTATTTGGTT  
 TTTTCTCCATGATGAGACCCTCAGAACCGTTCCTTATCCCATATTTATCTGGACCAGATAAAAACTGAC  
 CAGTGCAGAGATAACAAATGAGATCTTCCCGTTTGGACATACTCCTACCTGGTGTCTGCTGCCTGTG  
 TTTGTCCTCACCGATTATGTCGGCTACAAGCCAGTCATCATCTTGCAAGGTATCAGTTTCATCATTACCT  
 GGCTGCTGCTGTTGTTGGCCAAGGAGTGAAGACCATGCAGGTTGTAGAGTTCTTCTATGGGATGGTCAC  
 CGCCGCCGAGGTGGCCTACTACGCCTACATATACAGCGTGGTCAGCCCCGAGCACTACCAGAGAGTGAGC  
 GGCTACTGCAGGAGCGTCAGCTGGCCGCCTACACAGCAGGGTCGGTCTGGCTCAACTCTTGGTATCCC  
 TGGCGAACATGTCGTACTTTACCTCAACGTATATCCTTGGCCTCTGTCTCCGTGGCTTCTTTTCTC  
 ACTTTTCTACCAATGCCAAGAAAAGCATGTTTTTTCATGCAAAACCCAGCAGAGAAATAAAGAAGTCA  
 TCAAGCGTGAATCCAGTATTAGAGGAAACTCACGAAGGTGAAGCACCAGGCTGTGAAGAGCAGAAACCCA  
 CATCAGAAATACTCAGCACTTCAGGGAAGCTGAATAAGGGCCAGCTGAACAGCCTGAAACCAAGCAATGT  
 GACTGTGGACGTTTTTGTGCACTGGTCCAAGATTTGAAGGAGTGTACTCCTCAAAACGCTTTTCTAC  
 TGGTCTCTATGGTGGGCTTTCGCCACAGCAGGTTTTAACCAGTTTTGAACTATGTTCAAATCCTGTGGG  
 ATTACAAGGCGCCATCCCAAGATTTCCATCTATAATGGGGCCGTAGAAGCTATTGCAACCTTTGGAGG  
 GGCTGTGGCTGCCTTTCAGTGGGTTATGTGAAAGTCAACTGGGACCTTCTGGGAGAGCTGGCTCTGGT  
 GTCTTCTCAGTTGTCAATGCCGTTCTTTATTTCTCATGCATTACACAGCCAATATCTGGGCGTGCATG  
 CTGGCTATTTGATATTCAAGTCCAGCTATATGCTTCTTATAACCATAGCAGTATTTAGATTGCAATTAA  
 TCTGAATGTGGAACGCTATGCCTTGGTATTTGGAATCAACACCTTATTGCCTTGGTGATTGAGACCATC  
 ATGACTGTGATTGTAGTAGATCAGAGAGGGCTCAACTGCCAGTCAAGTTCAGTTTTTAGTTTATGGGA  
 GCTATTTTGCAGTAATTGCTGGAATTTTCTAATGAGAAGCATGTATATTACCTACTCAACCAAATCCCA  
 GAAGGATGTACAGAGCCCTGCTCCAAGTGAATCCAGATGTGTCTACCCAGAGGAAGAGAGTAATATC  
 ATCATGTCAACAAAATC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG206409 representing NM\_025243  
 Red=Cloning site Green=Tags(s)

MDCYRTLSSSSWIYPTVILCLFGFFSMMRPSEPFLIPYLSGPDKNLTSAEITNEIFPVWYTSYLVLLLPV  
 FVLTDYVRYKPVIIILQGISFIITWLLLLFGQGVKTMQVVEFFYGMVTAEEVAYIYISVVSPEHYQRVS  
 GYCRSVTLAAYTAGSVLAQLLVSLANMSYFYLNVISLASVSVAFVFLSFLPMPKSMFFHAKPSREIKKS  
 SSVNPVLEETHEGEAPGCEEQKPTSEILSTSGKLNKGQLNSLKPSNVTVDVVFQWFQDLKECYSSKRLFY  
 WSLWWAFATAGFNQVLNYVQILWDYKAPSDSSIYNGAVEAIATFGGAVAAFAVGYVKVNWDLGELALV  
 VFSVNVAGSLFLMHTANIWACYAGYLIFKSSYMLLITIAVFIQIIVNLNVERYALVFGINTFIALVIQTI  
 MTVIIVVDQRGLNLPVSIQFLVYGSYFAVIAGIFLMRSMYITYSTKSQKDVQSPAPSENPDVSHPEEESNI  
 IMSTKL

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-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\\_025243.3](#), [NP\\_079519.1](#)

**RefSeq Size:** 3775 bp

**RefSeq ORF:** 1491 bp

**Locus ID:** 80704

**UniProt ID:** [Q9BZV2](#)

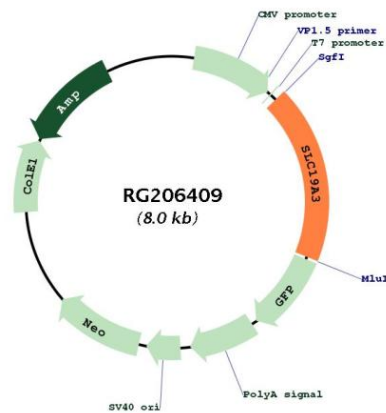
**Cytogenetics:** 2q36.3

**Domains:** Folate\_carrier

**Protein Families:** Transmembrane

**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 RG206409