

## Product datasheet for **RG221312**

### **SGLT1 (SLC5A1) (NM\_000343) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SGLT1 (SLC5A1) (NM_000343) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SGLT1
Synonyms:	D22S675; NAGT; SGLT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide  
Sequence:

>RG221312 representing NM\_000343  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGACAGTAGCACCTGGAGCCCAAGACCACCGCGTCAACCGCCTGTTGAGACCCACGAGCTCATTC  
GCAATGCAGCCGATATCTCCATCATCGTTATCTACTTCGTGGTAGTGATGGCCGTCGGACTGTGGGCTAT  
GTTTTCCACCAATCGTGGGACTGTTGGAGGCTTCTTCTGGCAGGCCGAAGTATGGTGTGGTGGCCGATT  
GGAGCCTCCCTCTTTGCTAGTAACATTGGAAGTGGCCACTTTGTGGGGCTGGCCGGGACTGGGGCAGCTT  
CAGGCATCGCCATTGGAGGCTTTGAATGGAATGCCCTGGTTTTGGTGGTGTGCTGGGCTGGCTGTTTTGT  
CCCCATCTATATTAAGGCTGGGGTGGTACAATGCCAGAGTACCTGAGGAAGCGGTTTGGAGGCCAGCGG  
ATCCAGGTCTACCTTTCCCTTCTGTCCCTGCTGCTCTACATTTTACCAAGATCTCGGCAGACATCTTCT  
CGGGGGCCATATTCATCAATCTGGCCTTAGGCCTGAATCTGTATTTAGCCATCTTCTCTTATTGGCAAT  
CACTGCCCTTTACACAATTACAGGGGGCTGGCGCGGTGATTTACACGGACACCTTGCAGACGGTGATC  
ATGCTGGTGGGGTCTTTAATCCTGACTGGGTTTGTCTTTTACGAAAGTGGGAGGCTATGACGCCTTATGG  
AAAAGTACATGAAAGCCATTCCAACCATAGTGTCTGATGGCAACACCACCTTTCAGGAAAAATGCTACAC  
TCCAAGGGCCGACTCCTTCCACATCTTCCGAGATCCCCTCACGGGAGACCTCCCATGGCCTGGGTTTCATC  
TTTGGGATGTCCATCCTTACCTTGTGGTACTGGTGACAGATCAGGTCATTGTGCAGCGCTGCCTCTCAG  
CCAAGAATATGTCTCACGTGAAGGGTGGCTGCATCCTGTGTGGGTATCTAAAGCTGATGCCCATGTTTCAT  
CATGGTGTGAGGAAATGATCAGCCGCATTCTGTACACAGAAAAAATGGCTGTGTCGTCCTTCAGAA  
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CTAGGACTTCTGATTGGGATTTACGTATGATTACTGAGTTTGTATGGAACGGGAGCTGCATGGAGC  
CCAGCAACTGTCCACGATTATCTGTGGGGTGCCTACTTGTACTTTGCCATTATCTCTTCGCCATTTT  
TTTCATCACCATCGTGGTCATCTCCCTCCTCACCAAACCCATTCCGGATGTGCATCTCTACCGTCTGTGT  
TGGAGCCTGCGCAACAGCAAAGAGGAGCGTATTGACCTGGATGCGGAAGAGGAGAAACATCCAAGAAGGCC  
CTAAGGAGACCATTGAAATAGAAACACAAGTTCCTGAGAAGAAAAAGGAATCTTCAGGAGAGCCTATGA  
CCTATTTTGTGGGCTAGAGCAGCACGGTGCACCAAGATGACTGAGGAAGAGGAGAAAGCCATGAAGATG  
AAGATGACGGACACCTCTGAGAAGCCTTTGTGGAGGACAGTGTGAACGTCAATGGCATCATCTGGTGA  
CCGTGGCTGTCTTTTGGCATGCATATTTTGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG221312 representing NM\_000343  
 Red=Cloning site Green=Tags(s)

```
MDSSTWSPKTTAVTRPVETHELIRNAADISIIIVYFVVVMAVGLWAMFSTNRGTVGGFFLAGRSMVWVPI
GASLFASNIGSGHFVGLAGTGAASGIAIGGFENALVLVVVLGWLFPYIYKAGVVTMPPEYLKRKFGGQR
IQVYLSLLSLLLYIFTKISADIFSGAIFINLALGLNLYLAIFLLLAITALYTITGGAAVIYTDTLQTVI
MLVGSILITGF AFHEVGGYDAFMEKYMKAIPTIVSDGNTTFQEKCYPADSFHIFRDPLTGDLPWPGFI
FGMSILTLWYWC TDQVIVQRCLSAKNMSHVKGGCILCGYLKLMPMFIMVMPGMISRILYTEKIACVVPSE
CEKYCGTKV GCTNIAYPTLVVELMPNGLRGLMLSVMLASLMSSLT SIFNSASTLFTMDIYAKVRKRASEK
ELMIAGRLFILVLIGISIAWPIVQSAQSGQLFDYIQSITSYLGPPIAAVFLLAIFWKRVNEPGAFWGLI
LGLLIGISRMITEFAYGTGSCMEPSNCP TIIICGVHYLYFAIILFAISFITIVVISLLTKPIPVDHLYRLC
WSLRNSKEERIDLDAEEENIQEGPKETIEIETQVPEKKKGI FRRAYDLFCGLEQHGAPKMT EEEEEKAMKM
KMTDTSEKPLWRTVLNVNGIILVTVAVFCHAYFA
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000343

**ORF Size:** 1992 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\\_000343.4](#)

**RefSeq Size:** 2449 bp

**RefSeq ORF:** 1995 bp

**Locus ID:** 6523

**UniProt ID:** [P13866](#)

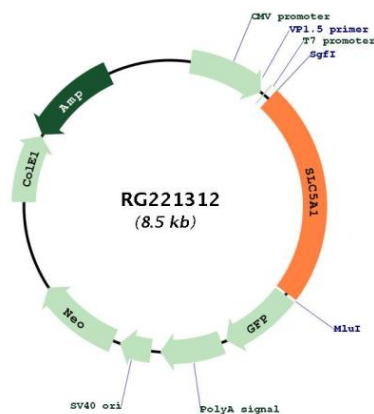
**Cytogenetics:** 22q12.3

**Domains:** SSF

**Protein Families:** Druggable Genome, Transmembrane

**Gene Summary:** This gene encodes a member of the sodium-dependent glucose transporter (SGLT) family. The encoded integral membrane protein is the primary mediator of dietary glucose and galactose uptake from the intestinal lumen. Mutations in this gene have been associated with glucose-galactose malabsorption. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2012]

### Product images:



Circular map for RG221312