

## Product datasheet for **RG224871**

### SLC7A2 (NM\_003046) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SLC7A2 (NM_003046) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC7A2
Synonyms:	ATRC2; CAT2; HCAT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG224871 representing NM\_003046  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAGATAGAAACAAGTGGTTATAACTCAGACAACTAATTTGTCGAGGTTTATTGGAACACCTGCC  
 CACCGTTTTCGACAGCAAGTTTCTCCTGTCGCCCTTCGTGACAGCTCAGAATGATTCCTTGACAGCCGC  
 GCTGACCTTTGCCGATGCTGATCCGGAGAAAAATCGTGACCCTGGACAGTCTAGAAGACACCAATTA  
 TGCCGCTGCTTATCCACCATGGACCTCATTGCCCTGGGCGTTGGAAGCACCCCTGGGGCCGGGTTATG  
 TCCTCGTGGGGAGGTGGCCAAGGCAGACTCGGGCCCCAGCATCGTGGTGTCTTCTCATTGCTGCCCT  
 GGCTTCAGTGATGGCTGGCCTCTGCTATGCCGAATTTGGGGCCCGTGTCCCAAGACGGGTCTGCATAT  
 TTGTACACCTACGTGACTGTCGGAGAGCTGTGGCCTTCATCACTGGCTGGAATCTCATTTTATCGTATG  
 TGATAGGTACATCAAGTGTGCAAGAGCCTGGAGTGGCACCTTTGATGAACCTCTTAGCAACAGATTGG  
 TCAGTTTTTGGAGACATACTTCAGAATGAATTACTGGTCTTGAGAATATCCCGATTTTTTGTGTG  
 TGCCCTTATATTACTTCTAGCAGGCTTTTTGTCTTTGGAGTAAAAGAGTCTGCTGGGTGAATAAAGTCT  
 TCACAGCTGTTAATATTCTGCTCCTTCTGTTTGTGATGTTGCTGGGTTTGTGAAAGGAAATGTGGCAAA  
 CTGGAAGATTAGTGAAGAGTTTCTCAAAAATATATCAGCAAGTCCAGAGAGCCACCTTCTGAAAACGGA  
 ACAAGTATCTATGGGGCTGGTGGCTTTATGCCCTTATGGCTTACGGGAACGTTGGCTGGTGTGCAACT  
 GCTTTTATGCCTTTGTGGGATTTGACTGCATTGCAACAACCTGGTGAAGAAGTTCGGAATCCCCAGAAAGC  
 TATCCCATTTGGAATTTGACGCTTTGCTTGTGTTGCTTATGGCCTATTTGGGGTCTCTGCAGCTTTA  
 ACATTTATGATGCCGTAACCTCCTCGATGAAAAAGCCCCCTCCTGTAGCGTTTGAATATGTGGGAT  
 GGGTCCCTGCCAAATATGTCGTCGAGCTGGTTCTCTCTGCGCCTTGTCACAAGTCTTCTGGGCTCTAT  
 GTTTCCTTTACCCGAATTCTGTTTGCATGGCCCGGGATGGCTTACTGTTTAGATTTCTTGCCAGAGTG  
 AGTAAGAGGCAGTCACCAGTTGCTGCCACGTTGACTGCAGGGTCAATTTCTGCTTTGATGGCCTTCTGT  
 TTGACCTGAAGGCGCTTGTGGACATGATGCCATTGGCACACTCATGGCCTACTCTCTGGTGGCAGCCTG  
 TGTTCTCATCCTCAGGTACCAGCCTGGCTTATCTTACGACCAGCCCAAATGTTCTCCTGAGAAAGATGGT  
 CTGGGATCGTCTCCAGGTAACCTCGAAGAGTGAGTCCAGGTACCATGCTGCAGAGACAGGGCTTCA  
 GCATGCCGACCCTCTTCTGCCCCCTCTTCTGCCAACACAGCAGTCACTTCTCTCGTGAGCTTTCTGGT  
 AGGATTCCTAGCTTCTCGTGTGGGCTGAGTGTCTTGACCACTTACGGAGTTCATGCCATCACCAGG  
 CTGGAGGCTGGAGCCTCGCTCTCCTCGCGCTGTTTCTTGTCTCTCGTTGCCATCGTTCTCACCATCT  
 GGAGGCTGCCCCAGAATCAGCAAAAAGTAGCCTTCATGTTCCATTCTTACCATTTTGCCAGCGTTCAG  
 CATCTTGGTGAACATTTACTTGATGGTCCAGTTAAGTGCAGACACTTGGGTGAGATTCAGCATTTGGATG  
 GCAATTGGCTTCTGATTTACTTTTCTTATGGCATTAGACACAGCCTGGAGGGTCACTGAGAGATGAAA  
 ACAATGAAGAAGATGCTTATCCAGACAAGTTCATGCAGCAGCAGAAGAAAAATCTGCCATTCAGCAAA  
 TGACCATCACCAAGAAATCTCAGTTCACCTTTTCATATTCATGAAAAGACAAGTGAATTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG224871 representing NM\_003046  
 Red=Cloning site Green=Tags(s)

MKIETSGYNSDKLICRFIGTPAPPVCDKFLSPSSDVRMIPCRAALTFARCLIRRKIVTLDLSLEDTKL  
 CRCLSTMDLIALGVGSTLGAGVYVLAGEVAKADSGPSIVVSFLIAALASVMAGLCYAEFGARVPKTGSAY  
 LYTYVTVGELWAFITGWNILLSYVIGTSSVARAWSGTFDELLSKQIGQFLRTYFRMNYTGLAEYPDFFAV  
 CLILLLAGLLSFGVKESAWVNKVF TAVNILLVLLFVMVAGFVKGNVANWKISEEFLKNISASAREPPSENG  
 TSIYGAGGMPYGF TGLAGAATCFYAFVGFDCIATTGEEVRNPQKAIPIGIVTSLLVCFMAYFGVSAAL  
 TLMMPYLLDEKSPLPVAFYVWGPAKYVVAAGSLCALSTSLGSMFPLPRILFAMARDGLLFRFLARV  
 SKRQSPVAATLTAGVISALMAFLFDL KALVDMMSIGTLMAYSLVAACVILIRYQPLSYDQPKCSPEKDG  
 LGSSPRVTSKSESQVTMLQRQGF SMRTLFCPSLLPTQQSASLVSFLVGFLAFLVGLSVLTTYGVHAITR  
 LEAWSLALLALFVLVFAIVLTIWRLPQNQKVAFMVPFLPFLPAFSILVNIYLMVQLSADTWVRF SIWM  
 AIGFLIYFSYGI RHSLEGLR DENNEEDAYPDNVHAAAEKSAIQANDHHP RNLS S PFI FHEKTSEF

TRTRPLE - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_003046

**ORF Size:** 2091 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\\_003046.4](#), [NP\\_003037.3](#)

**RefSeq Size:** 7577 bp

**RefSeq ORF:** 2094 bp

**Locus ID:** 6542

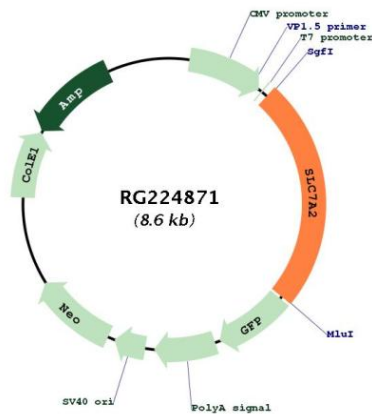
**UniProt ID:** [P52569](#)

**Cytogenetics:** 8p22

**Protein Families:** Druggable Genome, Transmembrane

**Gene Summary:** The protein encoded by this gene is a cationic amino acid transporter and a member of the APC (amino acid-polyamine-organocation) family of transporters. The encoded membrane protein is responsible for the cellular uptake of arginine, lysine and ornithine. Three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2011]

**Product images:**



Circular map for RG224871