

## Product datasheet for **RG221087**

### EAAT4 (SLC1A6) (NM\_005071) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EAAT4 (SLC1A6) (NM_005071) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EAAT4
Synonyms:	EAAT4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG221087 representing NM\_005071  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAGCAGCCATGGCAACAGCCTGTTCTTCGGGAGAGCGGCCAGCGGCTGGGCCGGGTGGGCTGGCTGC  
 AGCGGCTGCAGGAAAGCCTGCAGCAGAGAGCACTGCGCACGCGCCTGCGCCTGCAGACCATGACCCTCGA  
 GCACGTGCTGCGCTTCCTGCGCCGAAACGCCTTATTCTGCTGACGGTCAGCGCCGTGGTATTGGGGT  
 AGCCTGGCCTTTGCCCTGCGCCATATCAGCTCACCTACCGCCAGATCAAGTACTTCTCTTTTCTGGAG  
 AGCTTCTGATGAGGATGCTGCAGATGCTGGTGTACCTCTCATTGTCTCCAGCCTGGTCACAGGTATGGC  
 ATCCCTGGACAACAAGGCCACGGGGCGGATGGGGATGCGGGCAGCTGTGTACTACATGGTGACCACCATC  
 ATCGGGTCTTCATCGGCATCCTCATGGTACCATCATCCATCCCGGGAAGGGCTCAAGGAGGGGCTGC  
 ACCGGGAGGGCCGGATCGAGACCATCCCCACAGCTGATGCCTTCATGGACCTGATCAGAAATATGTTTCC  
 ACCAAACCTTGTGGAGGCTGCTTCAAACAGTTCAAGACGCAGTACAGCACGAGGGTGGTAACCAGGACC  
 ATGGTGAGGACAGAGAACGGGTCTGAGCCGGGTGCCTCCATGCCTCCTCCATTCTCAGTGGAGAACGGAA  
 CCAGCTTCTGGAAAATGTCACTCGGGCCTTGGGTACCCTGCAGGAGATGCTGAGCTTTGAGGAGACTGT  
 ACCCGTGCCTGGCTCCGCAATGGCATCAACGCCCTGGGCCTCGTGGTCTTCTGTGGCCTTTGGGCTG  
 GTCATTGGTGGCATGAAACACAAGGGCAGAGTCTCAGGGACTTCTTCGACAGCCTCAATGAGGCTATTA  
 TGAGGCTGGTGGGCATCATTATCTGGTATGCACCTGTGGGCATCCTGTTCTGATTGCTGGGAAGATTCT  
 GGAGATGGAAGACATGGCCGTCTGGGGGTGAGTGGGCATGTACACCTGACCGTCATCGTGGGCCTG  
 TTCCCTCCATGCCGCATTGTCTTCCCCTCATCTACTTCTCGTCACTACCGGAACCCCTTCCCCTTCA  
 TTGGGGCATGCTACAAGCCCTCATCACCGTATGGGCAGTCTTCCAGCTCGGCAACGCTGCCCATG  
 CTTCCGCTGCCTGGAGGAGGGCCTGGGTGTGGACCGCGCATCACAGGTTCTGCTCCTGCCGTGGGCGCC  
 ACGGTCAACATGGATGGCACTGCCTCTACGAGGCCCTGGCTGCCATCTTATTGCTCAAGTAAACAACT  
 ACGAGCTCAACCTGGGTGAGTACAAACCATCAGCATCACGGCCACAGCAGCCAGTGTGGGGCTGCTGG  
 CATCCCCAGGCGGGTCTGGTACCATGGTCAATTGTGCTTACGTCGGTGGCTTGGCCACGGAAGACATC  
 ACGCTCATCATCGCCGTGGACTGGTTCCTTGACCGGCTTCGCACAATGACCAACGTAAGGGGACTCAA  
 TTGGAGCGCCGTCATCGAGCACTTGTCTCAGCGGAGCTGGAGCTTCAAGGAGTGTGAGCTTACCCTCCC  
 CAGCCTGGGAAACCCTACAAGTCCCTCATGGCACAGGAGAAGGGGGCATCCCGGGACGGGAGGCAAC  
 GAGAGTGTATG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG221087 representing NM\_005071  
 Red=Cloning site Green=Tags(s)

MSSHNSLFLRESGRLGRVWLQRLQESLQQRALRRLRLQTMTEHLVLRFLRRNAFILLTVSAVVIGV  
 SLAFALRPYQLTYRQIKYFSFPGELLMRMLQMLVPLIVSSLVTGMSLDNKATGRMGMRRAVYVMVTI  
 IAVFIGILMVTIIHPGKSKEGLHREGRIETIPTADAFMDLIRNMFPPNLVEACFKQFKTQYSTRVVRT  
 MVRTENGSEPGASMPFFSVENGTSFLENVTRALGTLQEMLSFEETVPVPGSANGINALGLVVFVAFGL  
 VIGGMKHKGRVLRDFDSLNEAIMRLVGIIWYAPVGILFLIAGKILEMEDMAVLGGQLGMYTLTVIVGL  
 FLHAGIVLPLIYFLVTHRNPFFIGGMLQALITAMGTSSSATLPITFRCLEEGLGVDRRITRFVLPVGA  
 TVNMDGTALYEALAAIFIAQVNNYELNLGQITTSITATAASVGAAGIPQAGLVTMVIIVLTSVGLPTEDI  
 TLIIAVDWFLDRLRTMTNVLGDSIGAIVIEHLSQRELELQEAELTLPSTGPKPYKSLMAQEKASRGRGGN  
 ESAM

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_005071

**ORF Size:** 1692 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\\_005071.1](#), [NP\\_005062.1](#)

**RefSeq Size:** 1719 bp

**RefSeq ORF:** 1695 bp

**Locus ID:** 6511

**UniProt ID:** [P48664](#)

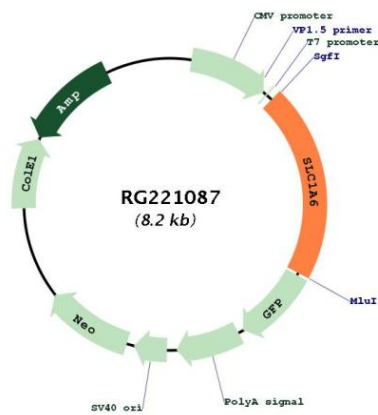
**Cytogenetics:** 19p13.12

**Domains:** SDF

**Protein Families:** Transmembrane

**Gene Summary:** Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:7791878). Functions as a symporter that transports one amino acid molecule together with two or three Na<sup>(+)</sup> ions and one proton, in parallel with the counter-transport of one K<sup>(+)</sup> ion. Mediates Cl<sup>(-)</sup> flux that is not coupled to amino acid transport; this avoids the accumulation of negative charges due to aspartate and Na<sup>(+)</sup> symport (By similarity). Plays a redundant role in the rapid removal of released glutamate from the synaptic cleft, which is essential for terminating the postsynaptic action of glutamate (Probable).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RG221087