

## Product datasheet for **RG233725**

### **EAAT4 (SLC1A6) (NM\_001272088) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EAAT4 (SLC1A6) (NM_001272088) 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)
ORF Nucleotide Sequence:	>RG233725 representing NM_001272088 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGCAGCCATGGCAACAGCCTGTTCTCGGGAGAGCGGCCAGCGGCTGGGCCGGTGGGCTGGCTGC  
AGCGGCTGCAGGAAAGCCTGCAGCAGAGAGCACTGCGCACGCGCCTGCGCCTGCAGACCATGACCCTCGA  
GCACGTGCTGCGCTTCTGCGCCGAAACGCCTTATTCTGCTGACGGTCAGCGCCGTGGTCATTGGGGTC  
AGCCTGGCCTTTGCCCTGCGCCCATATCAGCTCACCTACCGCCAGATCAAGTACTTCTCTTTTCTGGAG  
AGCTTCTGATGAGGATGCTGCAGATGCTGGTGTACCTCTCATTGTCTCCAGCCTGGTCACAGGTATGGC  
ATCCCTGGACAACAAGGCCACGGGGCGGATGGGGATGCGGGCAGCTGTGTACTACATGGTGACCACCATC  
ATCGCGGTCTTATCGGCATCCTCATGGTCACCATCATCCATCCCAGGAAAGGGCTCCAAGGAGGGGCTGC  
ACCGGGAGGGCCGGATCGAGACCATCCCAACAGCTGATGCCTTATGGACCTGATCAGAAATATGTTTCC  
ACCAAACCTTGTGGAGGCCTGCTTCAAACAGTTCAAGACGAGTACAGCACGAGGGTGGTAACCAGGACC  
ATGGTGAGGACAGAGAACGGGTCTGAGCCGGTGCCTCCATGCCTCCTCCATTCTCAGTGGAGAACGGAA  
CCAGCTTCTGGAAAATGCTACTCGGGCCTTGGTACCCTGCAGGAGATGCTGAGCTTTGAGGAGACTGT  
ACCCGTGCCTGGCTCCGCAATGGCATCAACGCCCTGGGCCTCGTGGTCTTCTCTGTGGCCTTTGGGCTG  
GTCATTGGTGGCATGAAACACAAGGGCAGAGTCCCTCAGGGACTTCTTCGACAGCCTCAATGAGGCTATTA  
TGAGGCTGGTGGGCATCATTATCTGG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG233725 representing NM\_001272088  
Red=Cloning site Green=Tags(s)

MSSHGNSLFLRESGQRLGRVGLQRLQESLQQRALRTRLRLQTMLEHVLRFRRNAFILLTVSAVVIGV  
 SLAFALRPYQLTYRQIKYFSFPGELLMRMLQMLVLPLIVSSLVGMSALDNKATGRMGMRRAAVVYMTTI  
 IAVFIGILMVTIIHPGKSKEGLHREGRIETIPTADAFMDLIRNMFPPNLVEACFKQFKTQYSTRVVTRT  
 MVRTENGSEPGASMPPPFSVENGTSFLENVTRALGTLQEMLSFEETVPVPGSANGINALGLVVFVSAFGL  
 VIGGMKHKGRVLRDFDLSLNEAIMRLVGIW

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_001272088

**ORF Size:** 936 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\\_001272088.2](#)

**RefSeq Size:** 1867 bp

**RefSeq ORF:** 939 bp

**Locus ID:** 6511

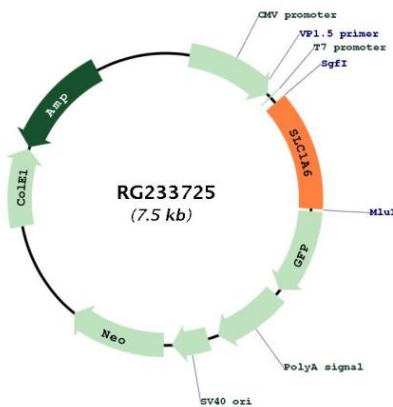
**UniProt ID:** [P48664](#)

**Cytogenetics:** 19p13.12

**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 RG233725