

## Product datasheet for **RG234446**

### EAAT2 (SLC1A2) (NM\_001252652) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EAAT2 (SLC1A2) (NM_001252652) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC1A2
Synonyms:	DEE41; EAAT2; EIEE41; GLT-1; HBGT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG234446 representing NM\_001252652  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCAAGCAGGTGGAAGTGCGAATGCACGACAGTCATCTTGGCTCAGAGGAACCAAGCACCGGCACC  
 TGGCCTGCGCCTGTGTGACAAGCTGGGAAGAATCTGCTGCTCACCTGACGGTGTGGTGTATCCT  
 GGGAGCAGTGTGTGGAGGCTTCTTCGCTTGGCATCTCCATCCACCCTGATGTGGTTATGTTAATAGCC  
 TTCCAGGGGATATACTCATGAGGATGCTAAAAATGCTCATTCTCCCTAATCATCTCCAGCTTAATCA  
 CAGGGTTGTGAGCCTGGATGCTAAGGCTAGTGGCCGCTTGGGCACGAGAGCCATGGTGTATTACATGTC  
 CACGACCATCATTGCTGCAGTACTGGGGTCACTTCTGGTCTTGGCTATCCATCCAGGCAATCCCAAGCTC  
 AAGAAGCAGCTGGGGCTGGGAAGAAGAATGATGAAGTGTCCAGCCTGGATGCCTTCTGGACCTTATTC  
 GAAATCTCTTCCCTGAAAACCTTGTCCAAGCCTGCTTCAACAGATTCAAACAGTGACGAAGAAAGTCT  
 GGTTCACACCCTGGGACGAGGAGGCCAACGCAACCAGCGCTGTGTCTCTGTGAACGAGACTGTG  
 ACTGAGGTGCCGAGGAGACTAAGATGGTTATCAAGAAGGCCTGGAGTTCAAGGATGGGATGAACGTCT  
 TAGGTCTGATAGGGTTTTTCATTGCTTTTGGCATCGCTATGGGGAAGATGGGAGATCAGGCCAAGCTGAT  
 GGTGGATTTCTTCAACATTTTGAATGAGATTGTAATGAAGTTAGTGATCATGATCATGTGGTACTCTCCC  
 CTGGGTATCGCCTGCCTGATCTGTGAAAGATCATTGCAATCAAGGACTTAGAAGTGGTTGCTAGGCAAC  
 TGGGGATGTACATGGTAACAGTGATCATAGGCCTCATCATCCACGGGGCATCTTCTCCCTTGATTTA  
 CTTTGTAGTGACCAGGAAAAACCCCTTCTCCTTTTTGCTGGCATTTCCTCAAGCTGGATCACTGCCCTG  
 GGCACCGCTTCCAGTGTGGAACCTTGCCTGTACCTTTCGTTGCCTGGAAGAAAATCTGGGGATTGATA  
 AGCGTGTGACTAGATTCTCTTCTGTTGGACCAACCATTAAACATGGATGGTACAGCCCTTTATGAAGC  
 GGTAGCCGCCATCTTTATAGCCCAAATGAATGGTGTGTCTGGATGGAGGACAGATTGTACTGTAAAGC  
 CTCACAGCCACCCTGGCAAGCGTCGCGCGGCCAGTATCCCAGTGCCGGGCTGGTACCATGCTCCTCA  
 TTCTGACAGCCGTGGCCTGCCAACAGAGGACATCAGCCTGCTGGTGGCTGTGGACTGGCTGCTGGACAG  
 GATGAGAACTTCACTCAATGTTGTGGGTGACTCTTTGGGGCTGGGATAGTCTATCACCTCTCCAAGTCT  
 GAGCTGGATACCATTGACTCCCAGCATCGAGTGCATGAAGATTTGAAATGACCAAGACTCAATCCATTT  
 ATGATGACATGAAGAACCACAGGAAAGCAACTTAATCAATGTGTCTATGCTGCACACAACCTGTGCAT  
 AGTAGATGAATGCAAGGTAACCTCTGGCAGCCAATGGAAAGTCAGCCGACTGCAGTGTGAGGAAGAACCT  
 TGGAAACGTGAGAAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG234446 representing NM\_001252652  
 Red=Cloning site Green=Tags(s)

MPKQVEVRMHDHSLGSEEPKHRHLGLRLCDKLGKNNLLTLTVFGVILGAVCGLLRLASPIHPDVVMLIA  
 FPGDILMRMLKMLILPLIISSLIITGLSGLDAKASGRLGTRAMVYYMSTTIIAAVLGVILVLAIHGPNPKL  
 KKQLGPGKKNDEVSSLDNFLDLIRNLFPENLVQACFQQIQTIVTKKVLVAPPPDEEANATSAVVSLNETV  
 TEVPEETKMVIKKGLEFKDGMNVLGLIGFFIAFGIAMGKMGDQAKLMVDFFNILNEIVMKLVIMIMWYSP  
 LGIACLICGKIIAIAIKDLEVVARQLGMYMVTVIIGLIIHGGIFLPLIYFVTRKNPFSFFAGIFQAWITAL  
 GTASSAGTLPVTFRCLEENLIDKRVTRFVLPVGATINMDGTALYEAVAAIFIAQMNGVVLDDGGQIVTVS  
 LTATLASVGAASIPSAGLVTMLILTAVGLPTEDISLLVAVDWLLDRMRTSVNVVGDVSGFAGIVYHLSKS  
 ELDTIDSQHRVHEDIEMTKTQSIYDDMKNHRESNSNQCVYAAHNSVIVDECKVTLAANGKSADCSVEEEP  
 WKREK

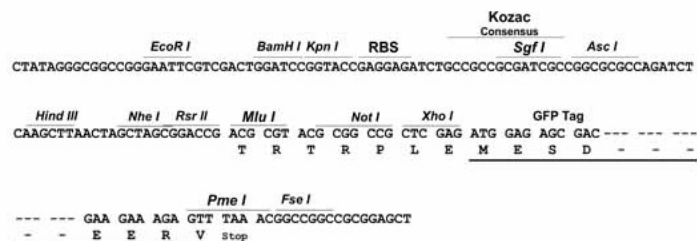
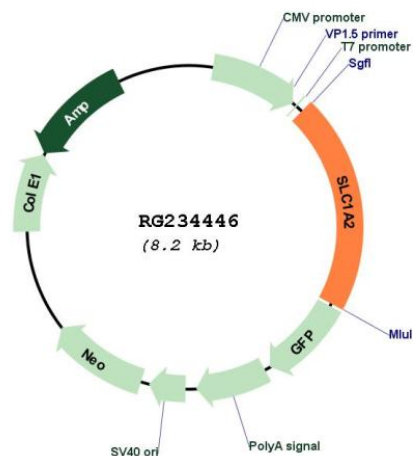
**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shutting:


**Plasmid Map:**


ACCN: NM\_001252652

ORF Size: 1695 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001252652.2</a>
<b>RefSeq Size:</b>	11724 bp
<b>RefSeq ORF:</b>	1698 bp
<b>Locus ID:</b>	6506
<b>UniProt ID:</b>	<a href="#">P43004</a>
<b>Cytogenetics:</b>	11p13
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Amyotrophic lateral sclerosis (ALS)
<b>Gene Summary:</b>	This gene encodes a member of a family of solute transporter proteins. The membrane-bound protein is the principal transporter that clears the excitatory neurotransmitter glutamate from the extracellular space at synapses in the central nervous system. Glutamate clearance is necessary for proper synaptic activation and to prevent neuronal damage from excessive activation of glutamate receptors. Improper regulation of this gene is thought to be associated with several neurological disorders. Alternatively spliced transcript variants of this gene have been identified. [provided by RefSeq, Jun 2017]