

Product datasheet for **RG230179**

EAAT1 (SLC1A3) (NM_001166695) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EAAT1 (SLC1A3) (NM_001166695) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SLC1A3
Synonyms:	EA6; EAAT1; GLAST; GLAST1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG230179 representing NM_001166695
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACTAAAAGCAATGGAGAAGAGCCCAAGATGGGGGCGAGGATGGAGAGATTCCAGCAGGGAGTCCGTA
 AACGCACACTTTTGGCCAAGAAGAAAGTGCAGAACATTACAAAGGAGGATGTTAAAAGTTACCTGTTTCG
 GAATGCTTTTGTGCTGCTCACAGTCACCCTGTATTGTGGGTACAATCCTTGGATTTACCTCCGACCA
 TACAGAATGAGCTACCGGGAAGTCAAGTACTTCTCCTTCTGGGAACTTCTGATGAGGATGTTACAGA
 TGCTGGTCTTACCCTTATCATCTCCAGTCTTGTACAGGAATGGCGGCGCTAGATAGTAAGGCATCAGG
 GAAGATGGGAATGCGAGCTGTAGTCTATTATGACTACCACCATCATTGCTGTGGTGATTGGCATAATC
 ATTGTCATCATCATCCATCCTGGGAAGGGCACAAAGGAAAACATGCACAGAGAAGGCAAAATTTGACGAG
 TGACAGCTGCAGATGCCTTCTGGACTTGATCAGGAACATGTTCCCTCCAATCTGGTAGAAGCCTGCTT
 TAAACAGTTTAAAACCACTATGAGAAGAGAAGCTTTAAAGTGCCCATCCAGGCCAACGAAACGCTTGTG
 GGTGCTGTGATAAACAATGTGTCTGAGGCCATGGAGACTTACCCTGAATCACAGAGGAGCTGGTCCAG
 TTCCAGGATCTGTGAATGGAGTCAATGCCTGGGTCTAGTTGTCTTCTCCATGTGCTTCCGTTTTGTGAT
 TGGAAACATGAAGGAACAGGGGCGAGCCCTGAGAGAGTTCTTTGATTCTTAAACGAAGCCATCATGAGA
 CTGGTAGCAGTAATAATGTGGTATGCCCGGTGGGTATTCTTCTTCTGATTGCTGGGAAGATTGTGGAGA
 TGGAAACATGGGTGTGATTGGGGGCGAGCTTCCCATGTACACCGTGACTGTCTTGTGGCTTACTCAT
 TCACGCAGTCATCGTCTTCCACTCCTCTACTTCTTGGTAACACGGAAAAACCTTGGGTTTTTATTGGA
 GGGTTGCTGCAAGCACTCATCACCGCTCTGGGGACCTCTCAAGTCTGCCACCCATCCCATCACCTTCA
 AGTCCCTGGAAGAGAACAATGGCGTGGACAAGCGCGTACCAGATTCGTGCTCCCGTAGGAGCCACCAT
 TAACATGGATGGGACTGCCCTCTATGAGGCTTTGGCTGCCATTTTCATTGCTCAAGTTAAACAACCTTGA
 CTGAACCTCGGACAAATTATTACAATCAGGGATCGCCTCCGACCACCACCAACGTAAGTGGAGACTCCC
 TGGGAGCTGGGATTGTGGAGCACTTGTACGACATGAACTGAAGAACAGAGATGTTGAAATGGGTAACCT
 AGTGATTGAAGAGAATGAAATGAAGAAACCATATCAACTGATTGCACAGGACAATGAAACTGAGAAACCC
 ATCGACAGTGAACCAAGATG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG230179 representing NM_001166695
 Red=Cloning site Green=Tags(s)

MTKSNGEPEPKMGRMERFQQGVRKRTLLAKKKVQNIKEDVKSYLEFRNAFVLLTAVIVGTILGFTLRP
 YRMSYREVKYFSFPGELLMRMLQMLVPLIISSSLVTGMAALDSKASGKMGMRVAVVYMTTIIIAVIGII
 IVIIHPGKGTENMHREGKIVRVTAADAFDLIRNMFPPNLVEACFKQFKTNYEKRSFKVPIQANETLV
 GAVINNVSEAMETLTRITEELVPVPGSVNGVNALGLVVF SMCFGFVIGNMKEQQQALREFFDLSLNEAIMR
 LVAVIMWYAPVGI LFLIAGKIVEMEDMGVIGGQLAMYTVTVIVGLLIHAVIVLPLLYFLVTRKNPWVFIG
 GLLQALITALGTSSSSATLPITFKLEENNGVDKRVTRFVLPVGATINMDGTALYEALAAIFIAQVNNFE
 LNFQIITIRDRLRTTTNVLGDSL GAGIVEHL SRHELKNRDVEMGNSVIEENEMKKPYQLIAQDNETEK
 IDSETKM

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



EcoRI
BamHI *KpnI*
RBS
Kozac
Consensus
SgfI
AscI

CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

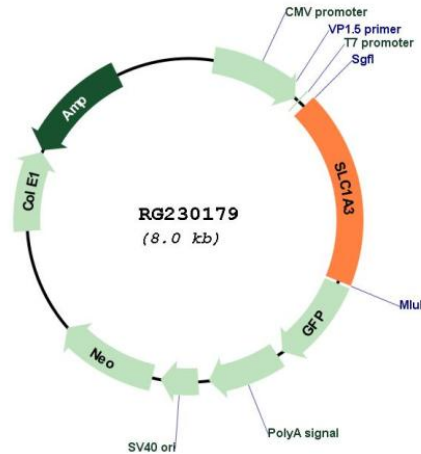
HindIII
NheI *RsrII*
MluI
NotI
XhoI
GFP Tag

CAAGCTTAAGCTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC ---

T R T R P L E M E S D - - -

PmeI
FseI

--- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT
 - - - E E R V Stop

Plasmid Map:


ACCN: NM_001166695

ORF Size: 1491 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_001166695.3](#)

RefSeq Size: 3670 bp

RefSeq ORF: 1494 bp

Locus ID: 6507

UniProt ID: [P43003](#)

Cytogenetics: 5p13.2

Protein Families: Transmembrane

Gene Summary: This gene encodes a member of a member of a high affinity glutamate transporter family. This gene functions in the termination of excitatory neurotransmission in central nervous system. Mutations are associated with episodic ataxia, Type 6. Alternative splicing results in multiple transcript variants.[provided by RefSeq, Feb 2014]