

## Product datasheet for **RC230179**

### **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:	Myc-DDK
Symbol:	EAAT1
Synonyms:	EA6; EAAT1; GLAST; GLAST1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC230179 representing NM\_001166695  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGACTAAAAGCAATGGAGAAGAGCCCAAGATGGGGGCAGGATGGAGAGATTCCAGCAGGGAGTCCGTA  
 AACGCACACTTTTGGCCAAGAAGAAAGTGCAGAACATTACAAAGGAGGATGTTAAAAGTTACCTGTTTCG  
 GAATGCTTTTGTGCTGCTCACAGTCACCCTGTATTGTGGGTACAATCCTTGGATTTACCTCCGACCA  
 TACAGAATGAGCTACCGGAAGTCAAGTACTTCTCCTTCTGGGAACTTCTGATGAGGATGTTACAGA  
 TGCTGGTCTTACCACTTATCATCTCCAGTCTTGTACAGGAATGGCGGCCTAGATAGTAAGGCATCAGG  
 GAAGATGGGAATGCGAGCTGTAGTCTATTATGACTACCACCATCATTGCTGTGGTATTGGCATAATC  
 ATTGTCATCATCATCCATCCTGGGAAGGGCACAAAGGAAAACATGCACAGAGAAGGCAAAATTGTACGAG  
 TGACAGCTGCAGATGCCTTCTGGACTTGATCAGGAACATGTTCCCTCCAATCTGGTAGAAGCCTGCTT  
 TAAACAGTTTAAAACCACTATGAGAAGAGAAGCTTTAAAGTGCCATCCAGGCCAACGAAACGCTTGTG  
 GGTGCTGTGATAAACAATGTGTCTGAGGCCATGGAGACTTACCAGAATCACAGAGGAGCTGGTCCAG  
 TTCCAGGATCTGTGAATGGAGTCAATGCCTGGGTCTAGTTGTCTTCCATGTGCTTCGGTTTTGTGAT  
 TGGAAACATGAAGGAACAGGGGCAGGCCCTGAGAGAGTCTTTGATTCTTAAACGAAGCCATCATGAGA  
 CTGGTAGCAGTAATAATGTGGTATGCCCCGTGGGTATTCTTCTTCTGATTGCTGGGAAGATTGTGGAGA  
 TGGAAACATGGGTGTGATTGGGGGCAGCTTGCCATGTACACCGTGACTGTCTTGTGGCTTACTCAT  
 TCACGCAGTCATCGTCTTGCCACTCCTCTACTTCTTGGTAACACGGAAAAACCTTGGGTTTTTATTGGA  
 GGGTGTCTGCAAGCACTCATCACCGCTCTGGGGACCTTCAAGTCTGCCACCCTACCCATCACCTTCA  
 AGTCCCTGGAAGAGAACAATGGCGTGGACAAGCGCGTCACCAGATTCTGTGCTCCCGTAGGAGCCACCAT  
 TAACATGGATGGGACTGCCCTCTATGAGGCTTTGGTGCATTTTCATTGCTCAAGTTAAACAACCTTGAA  
 CTGAACCTCGGACAAATTATTACAATCAGGGATCGCCTCCGACCACCACCAACGTAAGTGGAGACTCCC  
 TGGGAGCTGGGATTGTGGAGCACTTGTACGACATGAACTGAAGAACAGAGATGTTGAAATGGGTAACCT  
 AGTGATTGAAGAGAATGAAATGAAGAAACCATATCAACTGATTGCACAGGACAATGAAACTGAGAAACCC  
 ATCGACAGTGAACCAAGATG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC230179 representing NM\_001166695  
 Red=Cloning site Green=Tags(s)

MTKSNGEPEPKMGRMERFQQGVRKRTLLAKKKVQNIKEDVKSYLFRNAFVLLTAVIVGTILGFTLRP  
 YRMSYREVKYFSFPGELLMRMLQMLVPLIISLVTGMAALDSKASGKMGMRVAVVYMTTIIAVVIGII  
 IVIIHPGKGTENMHREGKIVRVTAADAFDLIRNMFPPNLVEACFKQFKTNYEKRSFKVPIQANETLV  
 GAVINNVSEAMETLRITEELVPVPGSVNGVNLGLVVFVSMCFVIGNMKEQQQALREFFDSLNEAIMR  
 LVAVIMWYAPVIGLFLIAGKIVEMDMGVIQQLAMYTIVIVGLLIHAVIVLPLLYFLVTRKPNWVFIG  
 GLLQALITALGTSSSSATLPITFKLENNGVDKRVTRFVLPVGATINMDGTALYEALAAIFIAQVNNFE  
 LNFGQIITIRDRLRTTNVLDGSLGAGIVEHLRHELKNRDVEMGNSVIEENEMKKPYQLIAQDNETEKP  
 IDSETKM

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8007\\_b07.zip](https://cdn.origene.com/chromatograms/mk8007_b07.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_001166695.3](#)

**RefSeq ORF:** 1494 bp

**Locus ID:** 6507

**UniProt ID:** [P43003](#)

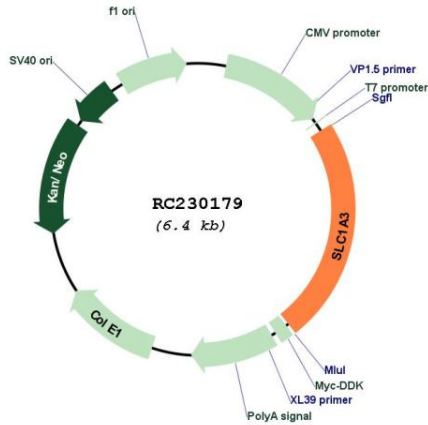
**Cytogenetics:** 5p13.2

**Protein Families:** Transmembrane

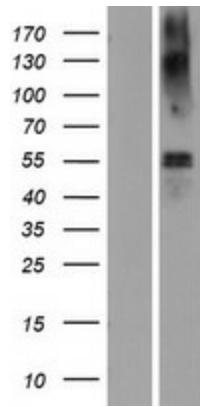
**MW:** 55.6 kDa

**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]

**Product images:**



Circular map for RC230179



Western blot validation of overexpression lysate (Cat# [LY433179]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC230179 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).