

Product datasheet for **RC234446**

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:	Myc-DDK
Symbol:	EAAT2
Synonyms:	DEE41; EAAT2; EIEE41; GLT-1; HBGT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC234446 representing NM_001252652
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCATCTACGGAAGGTGCCAACAAATATGCCAAGCAGGTGGAAGTGCAGTGCACGACAGTCATCTTG
 GCTCAGAGGAACCAAGCACCGGCACCTGGGCCTGCGCCTGTGTGACAAGCTGGGAAGAATCTGCTGCT
 CACCCTGACGGTGTGGTGTATCCTGGGAGCAGTGTGTGGAGGGCTTCTTCGCTTGGCATCTCCCATC
 CACCCTGATGTGGTTATGTTAATAGCCTTCCCAGGGGATATACTCATGAGGATGCTAAAAATGCTCATT
 TCCCTCTAATCATCTCCAGCTTAATCACAGGGTGTGAGGCCTGGATGCTAAGGCTAGTGGCCGCTTGGG
 CACGAGAGCCATGGTGTATTACATGTCCACGACCATATTGCTGCAGTACTGGGGTCTTCTGGTCTTG
 GCTATCCATCCAGGCAATCCAAGCTCAAGAAGCAGCTGGGCCTGGGAAGAAGAATGATGAAGTGCCA
 GCCTGGATGCCTTCTGGACCTATTGAAATCTTCCCTGAAAACCTTGCCAAGCCTGCTTCAACA
 GATTCAAACAGTGACGAAGAAAGTCTGGTTGCACCACCGCCGACGAGGAGGCCAACGCAACCAGCGCT
 GTTGTCTCTGTGAACGAGACTGTGACTGAGGTGCCGAGGAGACTAAGATGGTTATCAAGAAGGGCC
 TGGAGTTCAAGGATGGGATGAACGCTTAGGTCTGATAGGGTTTTTCATTGCTTTTGGCATCGCTATGGG
 GAAGATGGGAGATCAGGCCAAGCTGATGGTGGATTTCTTCAACATTTTGAATGAGATTGTAATGAAGTTA
 GTGATCATGATCATGTGGTACTCCTCCCTGGGTATCGCCTGCCTGATCTGTGAAAGATCATTGCAATCA
 AGGACTTAGAAGTGGTGGTACTAGGCAACTGGGGATGTACATGGTAACAGTGATCATAGGCCTCATCATCA
 CGGGGGCATCTTCTCCCTTGATTTACTTTGTAGTGACCAGGAAAAACCCCTTCTCTTTTTTGTGGC
 ATTTTCCAAGCTTGGATCACTGCCCTGGCACCCTCCAGTGTGAACTTTGCCTGTACACCTTCCGTT
 GCCTGGAAGAAAATCTGGGGATTGATAAGCGTGTGACTAGATTGCTCCTTCTGTTGGGCAACCTTAA
 CATGGATGGTACAGCCCTTATGAAGCGGTAGCCGCCATCTTTATAGCCCAAATGAATGGTGTGCTCTG
 GATGGAGGACAGATTGTGACTGTAAGCCTCACAGCCACCCTGGCAAGCGTCGGCGCGCCAGTATCCCCA
 GTGCCGGGCTGGTACCATGCTCCTCATTCTGACAGCCGTGGGCCTGCCAACAGAGGACATCAGCCTGCT
 GGTGGCTGTGGACTGGCTGCTGGACAGGATGAGAACTTCACTCAATGTTGTGGGTGACTCTTTGGGGCT
 GGGATAGTCTATCACCTTCCAAGTCTGAGCTGGATACCATTGACTCCCAGCATCGAGTGCATGAAGATA
 TTGAAATGACCAAGACTCAATCCATTTATGATGACATGAAGAACCACAGGAAAGCAACTCTAATCAATG
 TGTCTATGCTGCACAACTCTGTATAGTAGAATGAAGTAACTCTGGCAGCCAATGAAAGTCA
 GCCGACTGCAGTGTGAGGAAGAACCTTGAAACGTGAGAAA

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC234446 representing NM_001252652
 Red=Cloning site Green=Tags(s)

MASTEGANNMPKQVEVRMHDShLGSEEPKhrHLGLRLCDKLGKNNLLLTlVfGvILgAVCGLLRLASPI
 HPDVVMLIAfPGDILMRMLKMLILPLIISSlITGLSGLDAKASGRLGTRAMVYYMSTTIIAAVLGVILVL
 AIHPGNPKLKKQLGPGKKNDEVSSLDaFLDLIRNLFpENLVQACfQqIQTVTKKVLVAPPDEEANATSA
 VVSLlNETVTEVPEETKMVIKGLfKdGMNVLGLIGffIAFGIAMGKMGDQAKLMVDFFNILNEIVMKL
 VIMIMWYSPLGIAClCGKIIAIKdLEVVARQLGMYMVTVIIGLIHGGIFLPLIYfVVTRKNPFSFFAG
 IFQAWITAlGTASSAGTLpVTFrCLEENLGIKRVTRfVLPVGATINMDGTALYEAVAAIFIAQMNGVVL
 DGGQIVTVSLTATLASVGAASIPsAGLVtMLLILtAVGLPTEDIslLVAVDWLLDRMRTSVNVVGDsfGA
 GIVYHLskSELDtIDSqHRVhEDIEMTKtQSIYDDMKNHRESNSnQcVYAahNSVIVDECKVtLAANGKS
 ADCSVEEEPWKREK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001252652

ORF Size: 1722 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_001252652.1](#), [NP_001239581.1](#)

RefSeq Size: 11724 bp

RefSeq ORF: 1698 bp

Locus ID: 6506

UniProt ID: [P43004](#)

Cytogenetics: 11p13

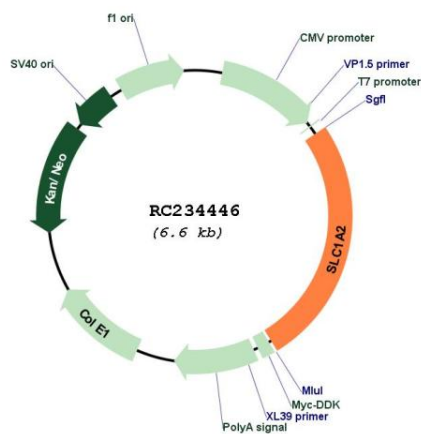
Protein Families: Transmembrane

Protein Pathways: Amyotrophic lateral sclerosis (ALS)

MW: 62.1 kDa

Gene Summary: 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]

Product images:



Circular map for RC234446