

Product datasheet for **SC117563**

EAAT3 (SLC1A1) (NM_004170) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EAAT3 (SLC1A1) (NM_004170) Human Untagged Clone
Tag:	Tag Free
Symbol:	EAAT3
Synonyms:	DCBXA; EAAC1; EAAT3; SCZD18
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC117563 sequence for NM_004170 edited (data generated by NextGen Sequencing)

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ATGGGGAAACCGGCGAGGAAAGGATGCGAGTGGAAGCGCTTCCTGAAGAATAACTGGGTG
TTGCTGTCCACCGTGGCCGCGGTGGTGTAGGCATTACCACAGGAGTCTTGGTTCGAGAA
CACAGCAACCTCTCAACTCTAGAGAAATCTACTTTGCTTTTCCTGGAGAAATCTAATG
CGATGCTGAAACTCATCATTTTGCATTAATTATATCCAGCATGATTACAGGTGTTGCT
GCACTGGATTCCAACGTATCCGAAAAAATTGGTCTGCGCGCTGTGTGTATTATTCTGT
ACCACTCTCATTGCTGTTATTCTAGGTATTGTGCTGGTGGTGGTGGTGGTGGTGGTGGT
ACCCAGAAAGTGGGTGAAATTGCGAGGACAGGCAGCACCCCTGAAAGTCAAGTACGGTGGAT
GCCATGTTAGATCTCATCAGGAATATGTTCCCTGAGAATCTTGTCCAGGCCTGTTTTAG
CAGTACAAAATAAGCGTGAAGAAGTGAAGCCTCCAGCGATCCAGAGATGAACATGACA
GAAGAGTCTTCCAGCTGTGATGACAACGCAATTTCCAAGAACAAAACAAAGGAATAC
AAAATTGTTGGCATGTATTCAGATGGCATAAACGTCCTGGGCTTGATTGTCTTTGCCTT
GTCTTTGGACTTGTGATTGGAAAAATGGGAGAAAAGGGACAAATCTGGTGGATTCTTC
AATGCTTTGAGTGATGCAACCATGAAAAATCGTTCAGATCATCATGTGTTATATGCCACTA
GGTATTTTGTTCCTGATTGCTGGGAAGATCATAGAAGTTGAAGACTGGGAAATATCCGC
AAGCTGGGCCTTTACATGGCCACAGTCCTGACTGGGCTTGCAATCCACTCCATTGTAATT
CTCCCCTGATATATTTCAAGTACGTAAGAAACCCCTTTCCGATTTGCCATGGGAATG
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TTCCGCTGTGCTGAAGAAAAAACCAGGTGGACAAGAGGATCACTCGATTCTGTGTTACCC
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ATTGCACAGTTGAATGACCTGGACTTGGCATTGGCAGATCATCACCATCAGTATCACG
GCCACATCTGCCAGCATCGGAGCTGCTGGCGTCCCGAGGCTGGCCTGGTGGTGGTGGT
ATTGTGCTGAGTGCCGTGGGCTGCCCGCGAGGATGTACCCTGATCATTGCTGTGAC
TGGCTCCTGGACCGTTCAGGACCATGGTCAACGTCCTTGGTGTGCTTTTGGGACGGGC
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ATTGTGAATCCCTTTGCCTTGAATCCACAATCCTTGACAACGAAGACTCAGACACCAAG
AAGTCTTATGTCAATGGAGGCTTTGCAGTAGACAAGTCTGACACCATCTCATTACCCAG
ACCTCACAGTTCTAG
    
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Clone variation with respect to NM_004170.5
1110 t=>c

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004170 unedited

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AGCTCTGGATTTTGAATACGACTCACTATAGGGCGGCCGACGAATTCGCACGAGGCGAC
AGCCATGGNGGAAACCGGCGAGGAAAGGATGCGAGTGGAAGCGCTTCCTGAAGAATAACT
GGGTGTTGCTGTCCACCGTGGCCGCGGTGGTGTAGGCATTACCACAGGAGTCTTGGTTC
GAGAACACAGCAACCTCTCAACTCTAGAGAAATCTACTTTGCTTTTCCTGGAGAAATTC
TAATGCGGATGCTGAAACTCATCATTTTGCATTAATTATATCCAGCATGATTACAGGTG
TTGCTGCACTGGATTCCAACGTATCCGAAAAAATTGGTCTGCGCGCTGTGTGTATTATT
TCTGTACCACTCTCATTGCTGTTATTCTAGGTATTGTGCTGGTGGTGGTGGTGGTGGT
GTGTCAACCAGAAAGTGGGTGAAATTGCGAGGACAGGCAGCACCCCTGAAAGTCAAGTACGG
TGGATGCCATGTTAGATCTCATCAGGAATATGTTCCCTGAGAATCTTGTCCAGGCCTGTT
TTCAGCAGTACAAAATAAGCGTGAAGAAGTGAAGCCTCCAGCGATCCAGAGATGAACA
TGACAGAAGAGTCTTCCAGCTGTGATGACAACGCAATTTCCAAGAACAAAACAAAGG
AATACAAAATTGTTGGCATGTATTCAGATGGCATAAACGTCCTGNGCTTGATTGTCTTTT
GCCTTGTCTTTGGACTTGTGATTGGAAAAATGGGAGAAAAGGGACAAATCTGGTGGATT
TCTTATGCTTTGAGTGATGCAACCATGAAAAATCGTTCAGATCATCATGTGTTATATGCC
ACTANGTATTTTGTCTGATTGCTGGGAAGATCATAGAAGTTNGAGACTGGGGAATATT
NCGCAAGCTGGGCCTTTACATGGCC
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_004170 unedited CGCGGGCCGCAATCTAGNATCGAGTTTTTTTTTTTTTTTTTAATTTATATTTAGATTTA TTTCTATAAAACAATAGCAATATTTGCATTTTAAAATTCACATTGAATCATTATTTACTA TTTATGATGTTTACATAACAATTCAGTATCATTATGTTGTAGATTTAGATGTAGTCGT CAATACTGAGCACTTATCTACTCTTCTGCTATCTTTGGCACAATTTCTCATTCTTAAAC ATGAAAGCACAGGTTTAAAGTTGGCTACAGAATACTGCAGAAACATGACTATTTTGGATTT CAGTGTAAGTACAAGTTTATGTTAAGCATTATTTACACGATGAGAAGTGAAGTACAGACT ATAATAAACTATCTTCATAAATTACCAGAATGACAAGCAGAGGATGTAATGAATAGGGCC AAGATTACTAGTTAGAACAGTCCTCCTGGAGGAGGAGACAAGAGTCTTAGAATGGAACATA TTTCCCCCGGACCACTCATACCAGCTTATGTCGTGGGATTTACTCTGCAACAACCCAGGT TATGGGGAAGCTCTTTTNTTGCAACGCGGCTTGTCCACCCATGTGATCTTTATTA CACATTTACTTGTACCTTGCCACTGCTATTCCGCGCCTGATAACACATCTGAAGGCAG GCAAAGAAGTCCGCTCTTTGAGTTGAATGAACTGGGAACATAAAGCCTTCATCTGGATGA AGCCCCCGCCTTTCTGGAGGCCAGCTTCTTATCCACCCTACGCCAACCGTATTGGGT CCCCCCAGCCCCCAATTTGAACCCTGTAAAGATGGCTAAGCCACCTCGGGTCACACC CTATTACTCTTTGTCTTAAAGTCCCTACCTCTGAAACCTTTACCACTGATTCTTTCTAG TGGCTATAAAAAGGCACCTTTACATTTACCCACCTGGCTGGATACGGTCTTTATACATTC GAGACCCCTCCTTTCCCTCGGTTTTTCCCTCCTCGCACCC
Restriction Sites:	NotI-NotI
ACCN:	NM_004170
Insert Size:	3370 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none"> 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:	<u>NM_004170.4</u> , <u>NP_004161.4</u>
RefSeq Size:	3730 bp
RefSeq ORF:	1575 bp
Locus ID:	6505
UniProt ID:	<u>P43005</u>
Cytogenetics:	9p24.2
Domains:	SDF

Protein Families: Druggable Genome, Transmembrane

Gene Summary: This gene encodes a member of the high-affinity glutamate transporters that play an essential role in transporting glutamate across plasma membranes. In brain, these transporters are crucial in terminating the postsynaptic action of the neurotransmitter glutamate, and in maintaining extracellular glutamate concentrations below neurotoxic levels. This transporter also transports aspartate, and mutations in this gene are thought to cause dicarboxylic amino aciduria, also known as glutamate-aspartate transport defect. [provided by RefSeq, Mar 2010]