

## Product datasheet for **RG206281**

### EAAT3 (SLC1A1) (NM\_004170) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	EAAT3 (SLC1A1) (NM_004170) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	EAAT3
Synonyms:	DCBXA; EAAC1; EAAT3; SCZD18
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG206281 representing NM\_004170  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGGAAACCGCGAGGAAAGGATGCGAGTGGAAAGCGCTTCTGAAGAATAACTGGGTGTGTGTGCCA  
 CCGTGGCCGCGGTGGTGCTAGGCATTACCACAGGAGTCTTGGTTCGAGAACACAGCAACCTCTCAACTCT  
 AGAGAAATTCTACTTTGCTTTTCTGGAGAAATCTAATGCGGATGCTGAAACTCATCTTTTCCATTA  
 ATTATATCCAGCATGATTACAGGTGTTGCTGCACTGGATTCCAACGTATCCGAAAAAATGGTGTGCGCG  
 CTGTGCTGTATTATTTCTGTACCACTCTCATTGCTGTTATTCTAGGTATTGTGCTGGTGGTGGAGCATCA  
 GCCTGGTGTACCCAGAAAGTGGTGAATTCGAGGACAGGCAGCACCCCTGAAGTCAGTACGGTGGAT  
 GCCATGTTAGATCTCATCAGGAATATGTTCCCTGAGAATCTTGTCCAGGCCTGTTTTCAGCAGTACAAAA  
 CTAAGCGTGAAGAAGTGAAGCTCCAGCGATCCAGAGATGAACATGACAGAAGAGTCTTCACAGCTGT  
 CATGACAACCTGCAATTTCCAAGAACAAAACAAAGGAATACAAAATGTTGGCATGTATTCAGATGGCATA  
 AACGTCCTGGGCTTGATTGTCTTTTGCCTTGTCTTTGGACTTGTCAATGGAAAAATGGGAGAAAAGGGAC  
 AAATCTGGTGGATTTCTCAATGCTTTGAGTGATGCAACCATGAAAATCGTTCCAGATCATCATGTGTTA  
 TATGCCACTAGGTATTTTGTCTGATTGCTGGGAAGTACATAGAAGTTGAAGACTGGGAAATATCCGC  
 AAGCTGGGCTTTACATGGCCACAGTCTGACTGGGCTTGCAATCCACTCCATTGTAATTTCTCCCGTGA  
 TATATTTCATAGTCGTACGAAAGAACCCTTTCCGATTTGCCATGGGAATGGCCAGGCTCTCCTGACAGC  
 TCTCATGATCTCTCCAGTTCAGCAACTGCCTGTACCTTCCGCTGTGCTGAAGAAAAAACCAGGTG  
 GACAAGAGGATCACTCGATTGCTGTTACCCGTTGGTGAACAATCAACATGGATGGGACTGCGCTCATG  
 AAGCATGGCAGCGGTGTTTATTGCACAGTTGAATGACCTGGACTTGGCATTGGGCAGATCACCATCACC  
 CAGTATACGGCCACATCTGCCAGCATCGAGCTGCTGGCGTGCCCAAGGCTGGCCTGGTGACCATGGTG  
 ATTGTGCTGAGTGCCGTGGGCTGCCGCCGAGGATGTCACCCTGATCATTGCTGTGACTGGCTCCTGG  
 ACCGGTTCAGGACCATGGTCAACGTCCTTGGTGTGCTTTGGGACGGCATTGTGGAAAAGCTCTCCAA  
 GAAGGAGCTGGAGCAGATGGATGTTTCTGAAAGTCAACATTGTGAATCCCTTTGCCTTGGAAATCCACA  
 ATCCTTGACAACGAAGACTCAGACACCAAGAAGTCTTATGTCAATGGAGGCTTGCAGTAGACAAGTCTG  
 ACACCATCTCATTACCCAGACCTCACAGTTC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG206281 representing NM\_004170  
 Red=Cloning site Green=Tags(s)

MGKPKARKGCEWKRFLKNNWVLLSTVAAVVLGITTGVLVREHSNLSTLEKFFAFPGIILMRMLKLIILPL  
 IISMITGVAALDSNVSGKIGVRAVVYFCTTLIAVILGIVLVSIKPGVTQKVEIARTGSTPEVSTVD  
 AMLDLIRNMFENLVQACFQYKTKREEVKPPSPPEMNMTEESFTAVMTTAISKNTKEYKIVGMYSDGI  
 NVLGLIVFCLVFGLVIGKMGEGQILVDFFNALSDATMKIVQIIMCYMPLGILFLIAGKIEVEDWEIFR  
 KLGLYMATVLTGLAIHSIVILPLIYFIVVRKNPFRFAMGMAQALLTALMISSSSATLPVTFRCAEENNV  
 DKRITRFVLPVGATINMDGTALYEAAVFIQNLNDLDLIGIQIITISITATSASIGAAGVPQAGLVTMV  
 IVLSAVGLPAEDVTLIIAVDWLLDRFRTMVNVLGDAFGTGIVEKLSKKELEQMDVSSEVNIIVNPFALST  
 ILDNESDSTKKSIVYVNGGFAVDKSDTISFTQTSQF

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_004170

**ORF Size:** 1572 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\\_004170.3](#)

**RefSeq Size:** 3730 bp

**RefSeq ORF:** 1575 bp

**Locus ID:** 6505

**UniProt ID:** [P43005](#)

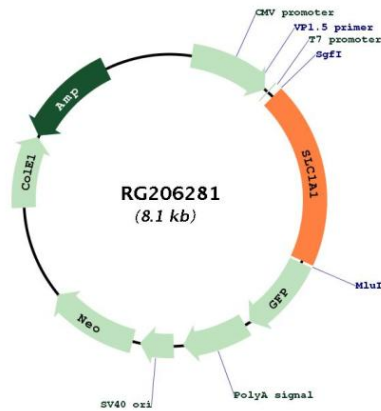
**Cytogenetics:** 9p24.2

**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 dicarboxylicamino aciduria, also known as glutamate-aspartate transport defect. [provided by RefSeq, Mar 2010]

**Product images:**



Circular map for RG206281