

Product datasheet for **RC221087**

EAAT4 (SLC1A6) (NM_005071) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	EAAT4 (SLC1A6) (NM_005071) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	EAAT4
Synonyms:	EAAT4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC221087 representing NM_005071
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGAGCAGCCATGGCAACAGCCTGTTCTTCGGGAGAGCGGCCAGCGGCTGGGCCGGTGGGCTGGCTGC
 AGCGGCTGCAGGAAAGCCTGCAGCAGAGAGCACTGCGCACGCGCCTGCGCCTGCAGACCATGACCCTCGA
 GCACGTGCTGCGCTTCCTGCGCCGAAACGCCTTATTCTGCTGACGGTACAGCGCGTGGTATTGGGGT
 AGCCTGGCCTTTGCCCTGCGCCATATCAGCTCACCTACCGCCAGATCAAGTACTTCTCTTTTCTGGAG
 AGCTTCTGATGAGGATGCTGCAGATGCTGGTGTACCTCTCATTGTCTCCAGCCTGGTACAGGTATGGC
 ATCCCTGGACAACAAGGCCACGGGGCGGATGGGGATGCGGGCAGCTGTGTACTACATGGTGACCACCATC
 ATCGGGTCTTCATCGGCATCCTCATGGTACCATCATCCATCCCGGGAAGGGCTCAAGGAGGGGCTGC
 ACCGGGAGGGCCGGATCGAGACCATCCCCACAGCTGATGCCTTCATGGACCTGATCAGAAATATGTTTCC
 ACCAAACCTTGTGGAGGCTGCTTCAAACAGTTCAAGACGCAGTACAGCAGGAGGTGGTAACCAGGACC
 ATGGTGAGGACAGAGAACGGGTCTGAGCCGGGTGCCTCCATGCCTCCTCATTCTCAGTGGAGAACGGAA
 CCAGCTTCTGGAAAATGTCACTCGGGCCTTGGGTACCCTGCAGGAGATGCTGAGCTTTGAGGAGACTGT
 ACCCGTGCCTGGCTCCGCAATGGCATCAACGCCCTGGGCCTCGTGGTCTTCTGTGGCCTTTGGGCTG
 GTCATTGGTGGCATGAAACACAAGGGCAGAGTCCCTCAGGGACTTCTTCGACAGCCTCAATGAGGCTATTA
 TGAGGCTGGTGGGCATCATTATCTGGTATGCACCTGTGGGCATCCTGTTCTGATTGCTGGGAAGATTCT
 GGAGATGGAAGACATGGCCGCTCCTGGGGGTGAGTGGGCATGTACCCCTGACCGTATCGTGGGCCTG
 TTCTCCATGCCGCATTGTCTTCCCCTCATCTACTTCTCGTCACTACCGGAACCCCTTCCCCTTCA
 TTGGGGCATGCTACAAGCCCTCATCACCGTATGGGCAGTCTTCCAGCTCGGCAACGCTGCCATCCATC
 CTTCGCTGCCTGGAGGAGGGCCTGGGTGTGGACCGCCGATCACCAGGTTCTGTCCTGCCGTGGGCGCC
 ACGGTCAACATGGATGGCACTGCCTCTACGAGGCCCTGGCTGCCATCTTATTGCTCAAGTAAACAACT
 ACGAGCTCAACCTGGGTGAGTACAAACCATCAGCATCACGGCCACAGCAGCCAGTGTGGGGCTGCTGG
 CATCCCCAGGCGGGTCTGGTACCATGGTCAATTGTGCTTACGTCGGTGGCTTGGCCACGGAAGACATC
 ACGCTCATATTGCCGTGGACTGGTTCCTTGACCGGCTTCGCACAATGACCAACGTAAGGGGACTCAA
 TTGGAGCGCCGTCATCGAGCACTTGTCTCAGCGGAGCTGGAGCTTCAAGGAGTGAAGCTTACCCTCCC
 CAGCCTGGGAAACCCTACAAGTCCCTCATGGCACAGGAGAAGGGGGCATCCCGGGACGGGAGGCAAC
 GAGAGTGCTATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221087 representing NM_005071
 Red=Cloning site Green=Tags(s)

MSSHGNSLFLRESGQRLGRVWGLQRLQESLQQRALRTRLRLQTMTEHVLRLRRAFILLTVSAVVIGV
 SLAFALRPYQLTYRQIKYFSFPGELLMRMLQMLVPLIVSSLVTGMSLDNKATGRMGMAAVVYVMTTI
 IAVFIGILMVTIIHPGKGSKEGLHREGRIETIPTADAFMDLIRNMFPPNLVEACFKQFKTQYSTRVVRT
 MVRTENGSEPGASMPFFSVENGTSFLENVTRALGTLQEMLSFEETVPVPGSANGINALGLVVFVAFGL
 VIGGMKHKGRVLRDFDLSLNEAIMRLVGIWIYAPVGIILFIAGKILEMEDMAVLGGQLGMYTLTVIVGL
 FLHAGIVLPLIYFLVTHRNPFFIGGMLQALITAMGTSSSATLPITFRCLIEEGLGVDRIITRFVLPVGA
 TVNMDGTALYEALAAIFIAQVNNYELNLGQITTSITATAASVGAAGIPQAGLVTMIVLTSVGLPTEDI
 TLIIAVDWFLDRLRTMTNVLGDSIGAIVIEHLSQRELELQEAELTLPKPYKSLMAQEKGASRGRGGN
 ESAM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6825_h10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_005071

ORF Size: 1692 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_005071.2](#)

RefSeq Size: 1719 bp

RefSeq ORF: 1695 bp

Locus ID: 6511

UniProt ID: [P48664](#)

Cytogenetics: 19p13.12

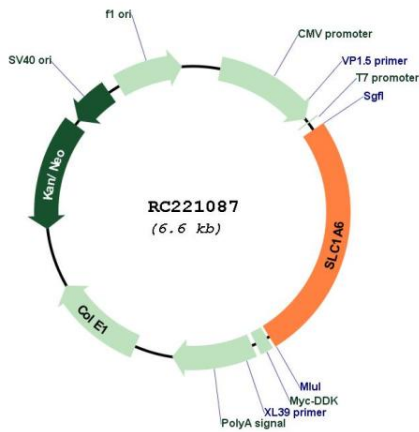
Domains: SDF

Protein Families: Transmembrane

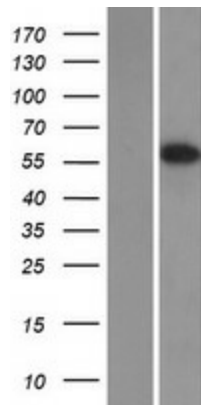
MW: 61.4 kDa

Gene Summary: Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:7791878). Functions as a symporter that transports one amino acid molecule together with two or three Na⁽⁺⁾ ions and one proton, in parallel with the counter-transport of one K⁽⁺⁾ ion. Mediates Cl⁽⁻⁾ flux that is not coupled to amino acid transport; this avoids the accumulation of negative charges due to aspartate and Na⁽⁺⁾ symport (By similarity). Plays a redundant role in the rapid removal of released glutamate from the synaptic cleft, which is essential for terminating the postsynaptic action of glutamate (Probable).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC221087



Western blot validation of overexpression lysate (Cat# [LY417555]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221087 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).