

# EAAT3 Antibody

Rabbit mAb

Catalog # AP91955

## Product Information

<b>Application</b>	WB, IHC, IF, ICC, IHF
<b>Primary Accession</b>	<a href="#">P43005</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	SLC1A1, EAAC1, EAAT3, Eaac-1;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	57100

## Additional Information

<b>Dilution</b>	WB 1:1000~1:5000 IHC 1:100~1:500 ICC/IF 1:50~1:200
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human EAAT3
<b>Description</b>	Transports L-glutamate and also L- and D-aspartate. Essential for terminating the postsynaptic action of glutamate by rapidly removing released glutamate from the synaptic cleft. Acts as a symport by cotransporting sodium. Negatively regulated by ARL6IP5.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

<b>Name</b>	SLC1A1 ( <a href="#">HGNC:10939</a> )
<b>Function</b>	Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed: <a href="#">21123949</a> , PubMed: <a href="#">26690923</a> , PubMed: <a href="#">33658209</a> , PubMed: <a href="#">7521911</a> , PubMed: <a href="#">7914198</a> , PubMed: <a href="#">8857541</a> ). Can also transport L-cysteine (PubMed: <a href="#">21123949</a> ). 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 (PubMed: <a href="#">26690923</a> , PubMed: <a href="#">33658209</a> , PubMed: <a href="#">7521911</a> , PubMed: <a href="#">8857541</a> ). Mediates Cl(-) flux that is not coupled to amino acid transport; this avoids the accumulation of negative charges due to aspartate and Na(+) symport (PubMed: <a href="#">26690923</a> , PubMed: <a href="#">8857541</a> ). Plays an important role in L- glutamate and L-aspartate reabsorption in renal tubuli (PubMed: <a href="#">21123949</a> ). 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 (By similarity). Contributes to glutathione biosynthesis and protection against oxidative

stress via its role in L-glutamate and L-cysteine transport (By similarity).  
Negatively regulated by ARL6IP5 (By similarity).

### Cellular Location

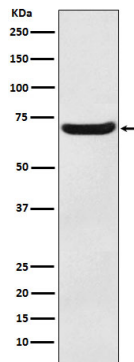
Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P43003}. Apical cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P43003}. Synapse, synaptosome {ECO:0000250|UniProtKB:P51906}. Early endosome membrane {ECO:0000250|UniProtKB:P51906}. Late endosome membrane {ECO:0000250|UniProtKB:P51906}. Recycling endosome membrane {ECO:0000250|UniProtKB:P51906}

### Tissue Location

Expressed in all tissues tested including liver, muscle, testis, ovary, retinoblastoma cell line, neurons and brain (in which there was dense expression in substantia nigra, red nucleus, hippocampus and in cerebral cortical layers)

## Images

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Western blot analysis of EAAT3 expression in Human fetal brain lysate.

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