

EAAT3 Rabbit pAb

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Catalog # AP94001

Product Information

Application	WB
Primary Accession	P51906
Reactivity	Human, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56694
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse EAAT3
Epitope Specificity	151-250/523
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Multi-pass membrane protein.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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.

Additional Information

Gene ID	20510
Other Names	Excitatory amino acid transporter 3, Excitatory amino-acid carrier 1, Sodium-dependent glutamate/aspartate transporter 3, Solute carrier family 1 member 1, Slc1a1, Eaac1 {ECO:0000303 PubMed:9233792}, Eaat3
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

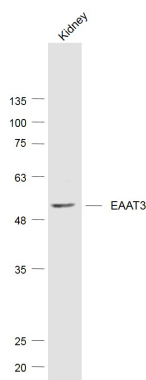
Protein Information

Name	Slc1a1
Synonyms	Eaac1 {ECO:0000303 PubMed:9233792}, Eaat
Function	Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed: 12119102 , PubMed: 18684713). Can also transport L-cysteine (PubMed: 30840898). 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 an important role in L-glutamate and L-aspartate reabsorption in renal tubuli (PubMed: 9233792). 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 (PubMed: 9233792). Contributes to glutathione biosynthesis and protection against oxidative stress via its role in L-glutamate and L- cysteine transport (PubMed: 30840898). Negatively regulated by ARL6IP5 (PubMed: 12119102).
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. Early endosome membrane. Late endosome membrane. Recycling endosome membrane
Tissue Location	Detected on neurons in the brain cortex, dentate gyrus and hippocampus CA2 region (at protein level) (PubMed:30840898) Expressed in whole brain, brain cortex, hippocampus, cerebellum, lung, kidney, small intestine and skeletal muscle (PubMed:30840898, PubMed:7766664, PubMed:9233792). Expressed in the renal outer medulla, medullary ray and cortex (at protein level) (PubMed:26739563)

Background

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Images



Sample:
 Kidney (Mouse) Lysate at 40 ug
 Primary: Anti-EAAT3 (AP94001) at 1/1000 dilution
 Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
 Predicted band size: 58 kD
 Observed band size: 58 kD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.