

EAAT3 Rabbit pAb
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Catalog # AP94001**Specification****EAAT3 Rabbit pAb - Product Information**

Application	WB
Primary Accession	P51906
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58 KDa
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.
SIMILARITY	Belongs to the sodium:dicarboxylate (SDF) symporter (TC 2.A.23) family. SLC1A1 subfamily.
SUBUNIT	Interacts with ARL6IP5/PRAF3.
Post-translational modifications	Glycosylated.
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.

EAAT3 Rabbit pAb - 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

Target/Specificity

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).

Dilution

WB~~1:1000

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

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.

EAAT3 Rabbit pAb - 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

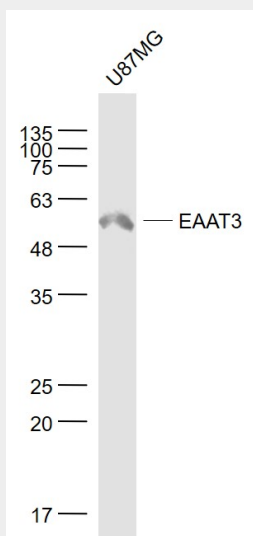
Detected on neurons in the brain cortex, dentate gyrus and hippocampus CA2 region (at protein level) (PubMed:30840898) Expressed in whole brain, brain cortex, hippocampus, cerebellum, lung, kidney, small intestine and skeletal muscle (PubMed:30840898, PubMed:7766664, PubMed:9233792). Expressed in the renal outer medulla, medullary ray and cortex (at protein level) (PubMed:26739563)

EAAT3 Rabbit pAb - Protocols

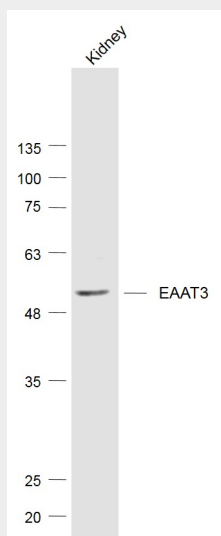
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

EAAT3 Rabbit pAb - Images



Sample: U87MG(Human) Cell Lysate at 30 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



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

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