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EAAT2 Rabbit pAb

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Catalog # AP94765

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P43006
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	62030
Physical State	Liquid
Immunogen	Recombinant mouse EAAT2 protein
Epitope Specificity	460-572/572
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. SLC1A2 subfamily.
SUBUNIT	Homotrimer. Interacts with AJUBA.
Post-translational modifications	Glycosylated. Palmitoylation at Cys-38 is not required for correct subcellular localization, but is important for glutamate uptake activity.
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 a family of solute transporter proteins. The membrane-bound protein is the principal transporter that clears the excitatory neurotransmitter glutamate from the extracellular space at synapses in the central nervous system. Glutamate clearance is necessary for proper synaptic activation and to prevent neuronal damage from excessive activation of glutamate receptors. Mutations in and decreased expression of this protein are associated with amyotrophic lateral sclerosis. Alternatively spliced transcript variants of this gene have been identified. [provided by RefSeq, Sep 2010]

Additional Information

Gene ID	20511
Other Names	Excitatory amino acid transporter 2, GLT-1, Sodium-dependent glutamate/aspartate transporter 2, Solute carrier family 1 member 2, Slc1a2, Eaat2, Glt1
Target/Specificity	Brain
Dilution	WB=1:500-2000,IHC-P=1:400-800,IHC-F=1:400-800,IF=1:100-500

Format	0.01M TBS(pH7.4) with 1% BSA, 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.

Protein Information

Name	Slc1a2
Synonyms	Eaat2, Glt1
Function	Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:7557442, PubMed:7698742, PubMed:9373176). 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). Essential for the rapid removal of released glutamate from the synaptic cleft, and for terminating the postsynaptic action of glutamate (PubMed:9180080).
Cellular Location	Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P43004}
Tissue Location	Detected in brain (PubMed:9180080). Detected in embryonic forebrain, especially in globus pallidus, perirhinal cortex, lateral hypothalamus, hippocampus, and on fimbria and axonal pathways connecting the neocortex, basal ganglia and thalamus (at protein level) (PubMed:16880397). Isoform GLT1 is expressed in the brain (PubMed:7557442, PubMed:7698742, PubMed:9180080, PubMed:9373176) Isoforms GLT-1A and GLT-1B are expressed in the liver (PubMed:9373176)

Background

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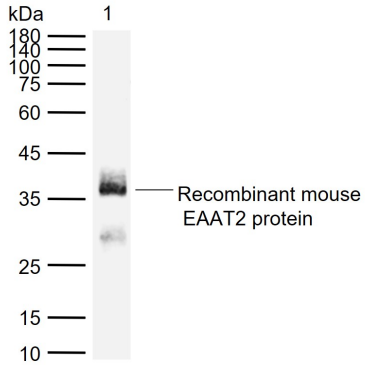
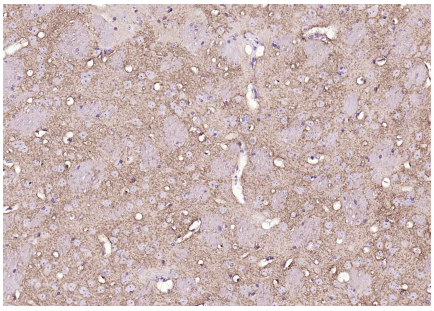
Images

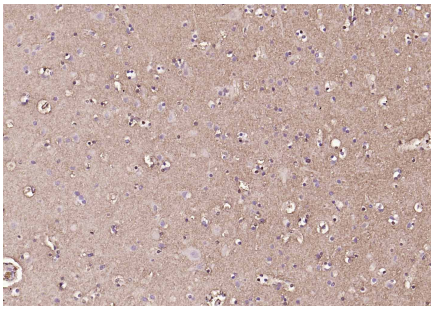


Sample: Lane 1: Recombinant mouse EAAT2 protein, GST & His Primary: Anti-EAAT2 (AP94765) at 1/500 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 62 kDa Observed band size: 36 kDa

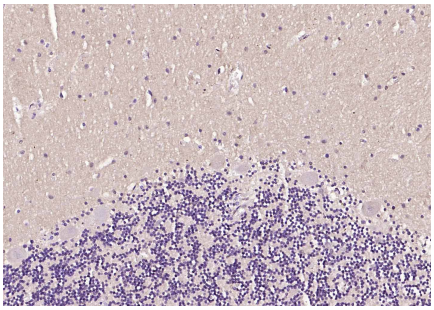
Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate



buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Incubation with (EAAT2) Polyclonal Antibody, Unconjugated (AP94765) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Incubation with (EAAT2) Polyclonal Antibody, Unconjugated (AP94765) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Incubation with (EAAT2) Polyclonal Antibody, Unconjugated (AP94765) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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