

EAAT2 Rabbit pAb

Catalog # AP97007

Product Information

Application	WB
Primary Accession	P43006
Other Accession	P43006
Reactivity	Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	62030
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse EAAT2
Epitope Specificity	171-270/572
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
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	DEE41; EAAT2; EIEE41; GLT-1; GLT1; HBGT; 1700091C19Rik; 2900019G14Rik; MGLT1; Glt; EAA2_HUMAN; SLC1A2; Glutamate/aspartate transporter II; Sodium-dependent glutamate/aspartate transporter 2; Solute carrier family 1 member 2; EAA2_MOUSE; EAA2_RAT; Sodium-dependent glutamate/aspartate transporter 2 (GLUT-R); solute carrier family 1 (glial high affinity glutamate transporter), member 2; glutamate transporter-1; Excitatory amino acid transporter 2; human brain glutamate transporter

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	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)

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