

EAAT2 (12G19) Rabbit Monoclonal Antibody

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Catalog # AP93831

Product Information

Application	WB, IHC, IP
Primary Accession	P43006
Reactivity	Rat, Mouse
Clonality	Monoclonal
Calculated MW	62030

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
Dilution	WB~~1:1000 IHC~~1:100~500 IP~~N/A
Storage Conditions	-20°C

Protein Information

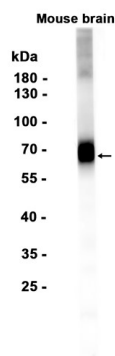
Name	Slc1a2
Synonyms	Eaat2, Glt1
Function	Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed: 7557442 , PubMed: 7698742 , PubMed: 9373176). Functions as a symporter that transports one amino acid molecule together 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

Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:7698742, PubMed:7557442, 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).

Images



Western blot analysis of extracts from Mouse brain tissue using AP93831 at 1:3000.

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