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EAAT2 (18V4) Rabbit Monoclonal Antibody

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Catalog # AP93835

Product Information

Application	WB, IHC-P, IP, IF
Primary Accession	P43006
Reactivity	Mouse, Rat
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-P~~N/A IP~~N/A IF~~1:50~200
Storage Conditions	-20℃

Protein Information

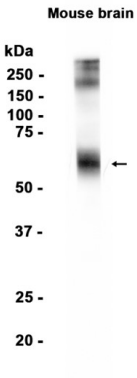
Name	Slc1a2
Synonyms	Eaat2, Glt1
Function	Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:7557442, PubMed:7698742, PubMed:9373176). Functions as a symporter that transports one amino acid molecule together with 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 AP93835 at 1:1000.