

EAAT2 (18V4) Rabbit Monoclonal Antibody

EAAT2 (18V4) Rabbit Monoclonal Antibody Catalog # AP93835

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:<u>7557442</u>, PubMed:<u>7698742</u>, PubMed:<u>9373176</u>). 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,

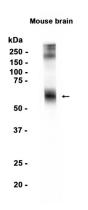
hippocampus, and on fimbria and axonal pathways connecting the neocortex, basal ganglia and thalamus (at protein level) (PubMed:16880397). Isoform

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.

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