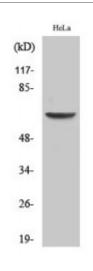


Anti-EAAT1 antibody





Description Rabbit polyclonal to EAAT1.

Model STJ92813

Host Rabbit

Reactivity Human

Applications ELISA, WB

Immunogen Synthesized peptide derived from human EAAT1.

Immunogen Region C-terminal

Gene ID 6507

Gene Symbol SLC1A3

Dilution range WB 1:500-1:2000ELISA 1:10000

Specificity EAAT1 Polyclonal Antibody detects endogenous levels of EAAT1 protein.

Tissue Specificity Detected in brain . Detected at very much lower levels in heart, lung, placenta

and skeletal muscle. Highly expressed in cerebellum, but also found in frontal

cortex, hippocampus and basal ganglia.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Excitatory amino acid transporter 1 Sodium-dependent glutamate/aspartate

transporter 1 GLAST-1 Solute carrier family 1 member 3

Molecular Weight 65 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:10941OMIM:600111</u>

Alternative Names Excitatory amino acid transporter 1 Sodium-dependent glutamate/aspartate

transporter 1 GLAST-1 Solute carrier family 1 member 3

Function Sodium-dependent, high-affinity amino acid transporter that mediates the

uptake of L-glutamate and also L-aspartate and D-aspartate . 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 . Plays a redundant role in the rapid removal of released glutamate from the synaptic cleft, which is essential for terminating the postsynaptic

action of glutamate.

Sequence and Domain Family Contains eight transmembrane regions plus two helical hairpins that dip into

the membrane. These helical hairpin structures play an important role in the transport process. The first enters the membrane from the cytoplasmic side, the second one from the extracellular side. During the transport cycle, the regions involved in amino acid transport, and especially the helical hairpins, move vertically by about 15-18 Angstroms, alternating between exposure to the aqueous phase and reinsertion in the lipid bilayer. In contrast, the regions

involved in trimerization do not move.

Cellular Localization Cell membrane

Post-translational

Modifications

Glycosylated.

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