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# Anti-EAAT3 Antibody

Catalog # ABO11476

## Product Information

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| **Application** | WB |
| **Primary Accession** | P51906 |
| **Host** | Rabbit |
| **Reactivity** | Mouse, Rat |
| **Clonality** | Polyclonal |
| **Format** | Lyophilized |
| **Description** | Rabbit IgG polyclonal antibody for Excitatory amino acid transporter 3(SLC1A1) detection. Tested with WB in Mouse;Rat. |
| **Reconstitution** | Add 0.2ml of distilled water will yield a concentration of 500ug/ml. |

## Additional Information

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| **Gene ID** | 20510 |
| **Other Names** | Excitatory amino acid transporter 3, Excitatory amino-acid carrier 1, Sodium-dependent glutamate/aspartate transporter 3, Solute carrier family 1 member 1, Slc1a1, Eaac1, Eaat3 |
| **Calculated MW** | 56694 |
| **Application Details** | Western blot, 0.1-0.5 □g/ml, Mouse, Rat |
| **Subcellular Localization** | Cell membrane ; Multi-pass membrane protein. Apical cell membrane ; Multi-pass membrane protein. Membrane; Multi-pass membrane protein. |
| **Tissue Specificity** | Expressed in brain, lung, kidney and skeletal muscle. |
| **Source** | Eukaryota |
| **Protein Name** | Excitatory amino acid transporter 3 |
| **Contents** | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. |
| **Immunogen** | A synthetic peptide corresponding to a sequence at the N-terminus of mouse EAAT3(10-27aa DWRRFLRNHWLLLSTVAA), identical to the related rat sequence. |
| **Purification** | Immunogen affinity purified. |
| **Cross Reactivity** | No cross reactivity with other proteins |

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| **Storage** | At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing. |

## Protein Information

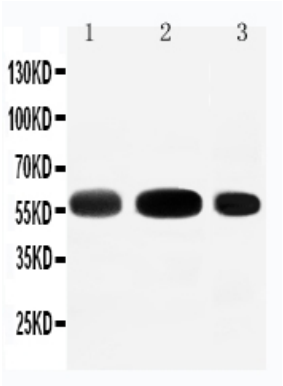
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| **Name** | Slc1a1 |
| **Synonyms** | Eaac1 {ECO:0000303\|PubMed:9233792}, Eaat |
| **Function** | Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:12119102, PubMed:18684713). Can also transport L-cysteine (PubMed:30840898). 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). Plays an important role in L-glutamate and L-aspartate reabsorption in renal tubuli (PubMed:9233792). 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 (PubMed:9233792). Contributes to glutathione biosynthesis and protection against oxidative stress via its role in L-glutamate and L- cysteine transport (PubMed:30840898). Negatively regulated by ARL6IP5 (PubMed:12119102). |
| **Cellular Location** | Cell membrane; Multi-pass membrane protein {ECO:0000250\|UniProtKB:P43003}. Apical cell membrane; Multi-pass membrane protein {ECO:0000250\|UniProtKB:P43003}. Synapse, synaptosome. Early endosome membrane. Late endosome membrane. Recycling endosome membrane |
| **Tissue Location** | Detected on neurons in the brain cortex, dentate gyrus and hippocampus CA2 region (at protein level) (PubMed:30840898) Expressed in whole brain, brain cortex, hippocampus, cerebellum, lung, kidney, small intestine and skeletal muscle (PubMed:30840898, PubMed:7766664, PubMed:9233792). Expressed in the renal outer medulla, medullary ray and cortex (at protein level) (PubMed:26739563) |

## Background

Solute carrier family 1 member 1, also called SLC1A1, is a protein that in humans is encoded by the SLC1A1 gene. By Southern analysis of a panel of human/rodent somatic cell hybrids and by fluorescence in situ hybridization(FISH), this gene is mapped to 9p24.2. This gene encodes a member of the high-affinity glutamate transporters that play an essential role in transporting glutamate across plasma membranes. In brain, these transporters are crucial in terminating the postsynaptic action of the neurotransmitter glutamate, and in maintaining extracellular glutamate concentrations below neurotoxic levels. This transporter also transports aspartate, and mutations in this gene are though to cause dicarboxylicamino aciduria, also known as glutamate-aspartate transport defect.

## Images

Anti-EAAT3 antibody, ABO11476, Western blottingLane 1: Rat Liver Tissue LysateLane 2: Rat Heart Tissue LysateLane 3: HEPA Cell Lysate




Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.