

**Anti-EAAT1 Antibody**  
**Catalog # ABO11495****Specification**

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**Anti-EAAT1 Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC-P, IHC-F       |
| Primary Accession | <a href="#">P43003</a> |
| Host              | Rabbit                 |
| Reactivity        | Human, Mouse, Rat      |
| Clonality         | Polyclonal             |
| Format            | Lyophilized            |

**Description**

Rabbit IgG polyclonal antibody for Excitatory amino acid transporter 1(SLC1A3) detection. Tested with WB, IHC-P, IHC-F in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-EAAT1 Antibody - Additional Information**

**Gene ID** 6507

**Other Names**

Excitatory amino acid transporter 1, Sodium-dependent glutamate/aspartate transporter 1, GLAST-1, Solute carrier family 1 member 3, SLC1A3, EAAT1, GLAST, GLAST1

**Calculated MW**

59572 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Rat, Human, By Heat<br><br>Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Rat, Human<br>Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human<br>

**Subcellular Localization**

Membrane; Multi-pass membrane protein.

**Tissue Specificity**

Highly expressed in cerebellum, but also found in frontal cortex, hippocampus and basal ganglia.

**Protein Name**

Excitatory amino acid transporter 1

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human EAAT1(519-537aa MKKPYQLIAQDNETEKPID), different from the related rat and mouse sequences by three amino

acids.

#### **Purification**

Immunogen affinity purified.

#### **Cross Reactivity**

No cross reactivity with other proteins

#### **Storage**

**At -20°C for one year. After reconstitution, 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.**

### **Anti-EAAT1 Antibody - Protein Information**

**Name** SLC1A3 ([HGNC:10941](#))

#### **Function**

Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed: [20477940](http://www.uniprot.org/citations/20477940), PubMed: [26690923](http://www.uniprot.org/citations/26690923), PubMed: [28032905](http://www.uniprot.org/citations/28032905), PubMed: [28424515](http://www.uniprot.org/citations/28424515), PubMed: [7521911](http://www.uniprot.org/citations/7521911), PubMed: [8123008](http://www.uniprot.org/citations/8123008)). 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 (PubMed: [20477940](http://www.uniprot.org/citations/20477940)). Mediates Cl(-) flux that is not coupled to amino acid transport; this avoids the accumulation of negative charges due to aspartate and Na(+) symport (PubMed: [20477940](http://www.uniprot.org/citations/20477940)). 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 (By similarity).

#### **Cellular Location**

Cell membrane; Multi-pass membrane protein

#### **Tissue Location**

Detected in brain (PubMed:7521911, PubMed:8123008, PubMed:8218410). Detected at very much lower levels in heart, lung, placenta and skeletal muscle (PubMed:7521911, PubMed:8123008). Highly expressed in cerebellum, but also found in frontal cortex, hippocampus and basal ganglia (PubMed:7521911).

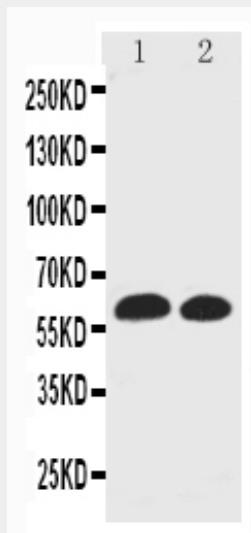
### **Anti-EAAT1 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### Anti-EAAT1 Antibody - Images



Anti-EAAT1 antibody, ABO11495, Western blotting  
Lane 1: Rat Brain Tissue Lysate  
Lane 2: Mouse Brain Tissue Lysate



Anti-EAAT1 antibody, ABO11495, IHC(P)  
IHC(P): Rat Brain Tissue

#### Anti-EAAT1 Antibody - Background

Solute carrier family 1 (glial high-affinity glutamate transporter), member 3, also known as SLC1A3, EAAT1 or GLAST, is a protein that in humans is encoded by the SLC1A3 gene. This gene is a member of high affinity glutamate transporter family. SLC1A3 is mapped to chromosome 5p13.2 by fluorescence in situ hybridization (FISH). This gene transports L-glutamate and also L- and D-aspartate. It is essential for terminating the postsynaptic action of glutamate by rapidly removing released glutamate from the synaptic cleft. This gene acts as a symport by cotransporting sodium.