

# Anti-EAAT1 SLC1A3 Rabbit Monoclonal Antibody

Catalog # ABO13797

### Specification

# Anti-EAAT1 SLC1A3 Rabbit Monoclonal Antibody - Product Information

Application WB, IHC **Primary Accession** P43003 Rabbit Host Isotype Rabbit IgG Reactivity Rat, Human, Mouse Clonality Monoclonal Format Liquid Description Anti-EAAT1 SLC1A3 Rabbit Monoclonal Antibody . Tested in WB, IHC applications. This antibody reacts with Human, Mouse, Rat.

## Anti-EAAT1 SLC1A3 Rabbit Monoclonal 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 (<a href="http://www.genenames.org/cgi-bin/gene\_symbol\_report?hgnc\_id=10941" target="\_blank">HGNC:10941</a>)

Calculated MW 59572 MW KDa

Application Details WB 1:500-1:2000<br>HC 1:50-1:200

Subcellular Localization Membrane; Multi-pass membrane protein.

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

**Contents** Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen A synthesized peptide derived from human EAAT1

Purification Affinity-chromatography

Storage

Store at -20°C for one year. For short term



storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

### Anti-EAAT1 SLC1A3 Rabbit Monoclonal 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:<a

href="http://www.uniprot.org/citations/20477940" target="\_blank">20477940</a>, PubMed:<a href="http://www.uniprot.org/citations/26690923" target="\_blank">26690923</a>, PubMed:<a href="http://www.uniprot.org/citations/28032905" target="\_blank">28032905</a>, PubMed:<a href="http://www.uniprot.org/citations/28424515" target="\_blank">28424515</a>, PubMed:<a href="http://www.uniprot.org/citations/28424515" target="\_blank">28424515</a>, PubMed:<a href="http://www.uniprot.org/citations/28424515" target="\_blank">28424515</a>, PubMed:<a href="http://www.uniprot.org/citations/7521911" target="\_blank">7521911</a>, PubMed:<a href="http://www.uniprot.org/citations/7521911" target="\_blank">8123008</a>). 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:<a

href="http://www.uniprot.org/citations/20477940" target="\_blank">20477940</a>). 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:<a

href="http://www.uniprot.org/citations/20477940" target="\_blank">20477940</a>). 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 SLC1A3 Rabbit Monoclonal Antibody - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-EAAT1 SLC1A3 Rabbit Monoclonal Antibody - Images





Western blot analysis of EAAT1 expression in Mouse brain lysate.



Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue with Rabbit anti-EAAT1 antibody at 1/200 dilution.



Immunohistochemical analysis of paraffin-embedded human brain tissue using anti-EAAT1 antibody.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH2O and PBS, and then probed with the primary antibody (1/50) for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer



system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



All lanes use the Antibody at 1:2K dilution for 1 hour at room temperature.