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Anti-EAAT1 Antibody
Catalog # ABO11495

Specification

Anti-EAAT1 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	P43003
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

Immunohistochemistry(Frozen Section), 0.5-1 µg/ml, Rat, Human
Western blot, 0.1-0.5 µg/ml, Mouse, Rat, Human

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 Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

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 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.**

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:7521911, PubMed:8123008, PubMed:20477940, PubMed:26690923, PubMed:28032905, PubMed:28424515). 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). 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). 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:8218410, PubMed:7521911, PubMed:8123008). 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

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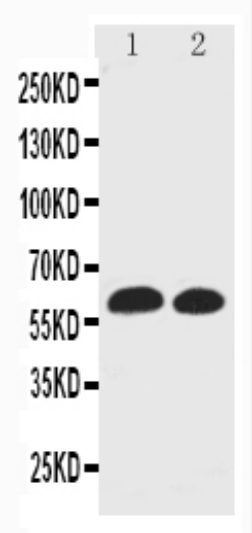
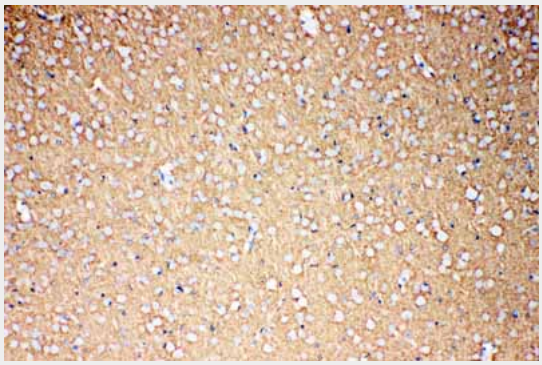
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-EAAT1 Antibody - Images



Anti-EAAT1 antibody, ABO11495, Western blottingLane 1: Rat Brain Tissue LysateLane 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.