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Anti-EAAT1 Picoband Antibody

Catalog # ABO12644

Product Information

Application	WB, IHC-P
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 in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/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.
Source	Eukaryota
Protein Name	Excitatory amino acid transporter 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human EAAT1 (14-42aa RMERFQQGVRKRTLLAKKKVQNITKEDVK), different from the related mouse sequence by three amino acids, and identical to the related rat sequence.
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.

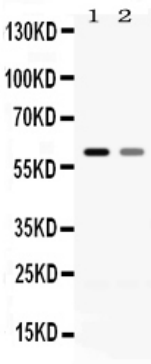
Protein Information

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, PubMed:26690923, PubMed:28032905, PubMed:28424515, PubMed:7521911, PubMed: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). 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: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).

Background

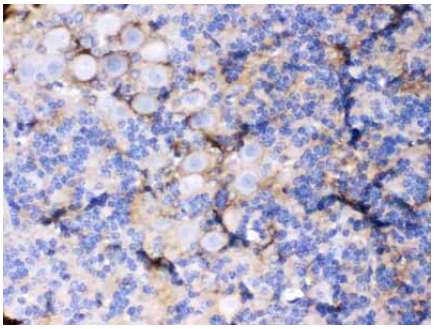
Solute carrier family 1 (glial high-affinity glutamate transporter), member 3, also known as SLC1A3, EAAT1 or GLAST, is a protein that in humans is encoded by the SLC1A3 gene. This gene is a member of high affinity glutamate transporter family. It is mapped to chromosome 5p13.2 by fluorescence in situ hybridization (FISH). And 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. Furthermore, this gene acts as a symport by cotransporting sodium.

Images

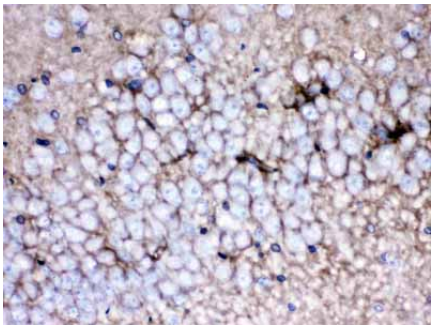


Western blot analysis of EAAT1 expression in rat brain extract (lane 1) and mouse brain extract (lane 2). EAAT1 at 60KD was detected using rabbit anti-EAAT1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12644) at 0.5 □¼g/mL. The blot was developed using chemiluminescence (ECL) method .

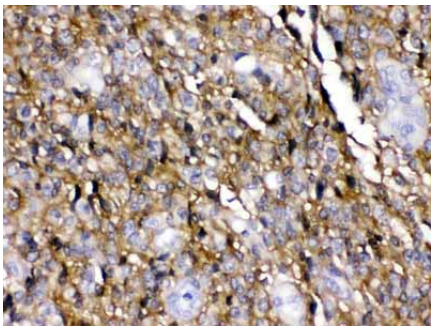
EAAT1 was detected in paraffin-embedded sections of mouse cerebellum tissues using rabbit anti- EAAT1



Antigen Affinity purified polyclonal antibody (Catalog # ABO12644) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .



EAAT1 was detected in paraffin-embedded sections of rat brain tissues using rabbit anti- EAAT1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12644) at 1 ??g/mL. The immunohistochemical section was developed using SABC method .



EAAT1 was detected in paraffin-embedded sections of huaman glioma tissues using rabbit anti- EAAT1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12644) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .

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