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Anti-EAAT1 SLC1A3 Rabbit Monoclonal Antibody

Catalog # ABO13797

Product Information

Application	WB, IHC
Primary Accession	P43003
Host	Rabbit
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.

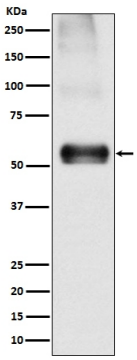
Additional Information

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 (HGNC:10941)
Calculated MW	59572
Application Details	WB 1:500-1:2000 IHC 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.
Source	Eukaryota
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.
Clone Names	Clone: ABFO-19
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.

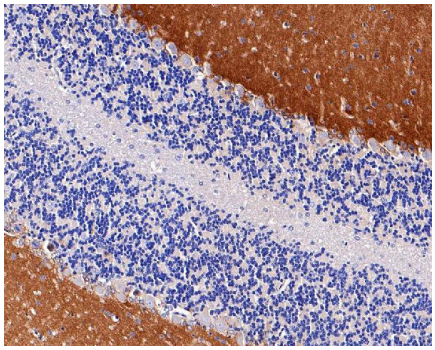
Protein Information

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).

Images

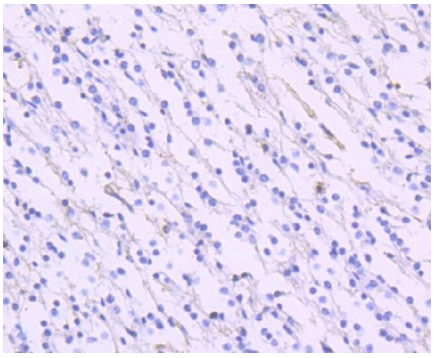


Western blot analysis of EAAT1 expression in Mouse brain lysate.

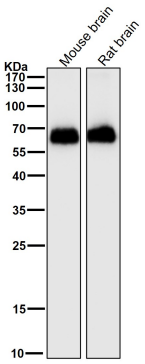


Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue with Rabbit anti-EAAT1 antibody at 1/200 dilution.

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.

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