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Anti-EAAT3 Monoclonal Antibody

Catalog # ABO14713

Product Information

Application	WB, IHC, IF, ICC
Primary Accession	P43005
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-EAAT3 Monoclonal Antibody . Tested in WB, IHC, ICC/IF applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	6505
Other Names	Excitatory amino acid transporter 3, Excitatory amino-acid carrier 1, Neuronal and epithelial glutamate transporter, Sodium-dependent glutamate/aspartate transporter 3, Solute carrier family 1 member 1, SLC1A1 (HGNC:10939)
Calculated MW	57100
Application Details	WB 1:1000-1:5000 IHC 1:100-1:500 ICC/IF 1:50-1:200
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: AFBG-19
Immunogen	A synthesized peptide derived from human EAAT3 Transports L-glutamate and also L- and D-aspartate. Essential for terminating the postsynaptic action of glutamate by rapidly removing released glutamate from the synaptic cleft. Acts as a symport by cotransporting sodium. Negatively regulated by ARL6IP5.
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	SLC1A1 (HGNC:10939)

Function

Sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate and also L-aspartate and D-aspartate (PubMed:21123949, PubMed:26690923, PubMed:33658209, PubMed:7521911, PubMed:7914198, PubMed:8857541). Can also transport L-cysteine (PubMed:21123949). 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:26690923, PubMed:33658209, PubMed:7521911, PubMed:8857541). 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:26690923, PubMed:8857541). Plays an important role in L- glutamate and L-aspartate reabsorption in renal tubuli (PubMed:21123949). 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). Contributes to glutathione biosynthesis and protection against oxidative stress via its role in L-glutamate and L-cysteine transport (By similarity). Negatively regulated by ARL6IP5 (By similarity).

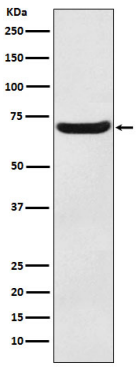
Cellular Location

Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P43003}. Apical cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P43003}. Synapse, synaptosome {ECO:0000250|UniProtKB:P51906}. Early endosome membrane {ECO:0000250|UniProtKB:P51906}. Late endosome membrane {ECO:0000250|UniProtKB:P51906}. Recycling endosome membrane {ECO:0000250|UniProtKB:P51906}

Tissue Location

Expressed in all tissues tested including liver, muscle, testis, ovary, retinoblastoma cell line, neurons and brain (in which there was dense expression in substantia nigra, red nucleus, hippocampus and in cerebral cortical layers)

Images



Western blot analysis of EAAT3 expression in Human fetal brain lysate.

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