OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TA336274

EAAT1 (SLC1A3) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, FC, ICC/IF, IHC, WB
Recommended Dilution:	Flow (Intracellular): 1:500, Immunocytochemistry/ Immunofluorescence: 1:10-1:500, Immunohistochemistry: 1:10-1:500, Immunohistochemistry-Frozen: 1:10-1:500, ELISA: 1:100 - 1:2000, Flow Cytometry: 1:200-1:500, Immunohistochemistry-Paraffin: 1:50-1:500, Western Blot: 2 ug/ml
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	A synthetic peptide made to a C-terminal portion of the rat SLC1A3 protein (between residues 500-542) [UniProt P24942]
Formulation:	PBS, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	60 kDa
Gene Name:	solute carrier family 1 member 3
Database Link:	NP_001160167 Entrez Gene 20512 MouseEntrez Gene 29483 RatEntrez Gene 6507 Human P43003

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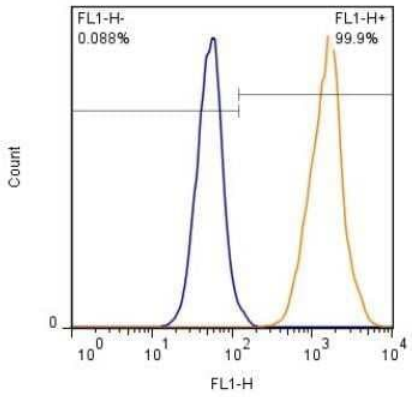
Background: Excitatory amino acid transporter 1 (SLC1A3), also known as sodium-dependent glutamate/aspartate transporter 1, GLAST-1, solute carrier family 1 member 3, EAAT1, and EA6, transports and regulates L-glutamate, D-aspartate, and L-aspartate. SLC1A3 ends the glutamate postsynaptic actions by removing remaining glutamate from the cleft and by reducing extracellular glutamate. SLC1A3 is a member of a family of high affinity sodium-dependent transporter molecules that regulate neurotransmitter concentrations at the excitatory glutamatergic synapses of the mammalian central nervous system. In addition, SLC1A3 may also be important for the prevention of glutamate excitotoxicity. The SLC1A3 protein is located on the cell membrane. SLC1A3 is prominently expressed in the cerebellum, frontal cortex, hippocampus and basal ganglia and is also reported to be found in heart, placenta, lung and striated muscle. The SLC1A3 protein is subject to glycosylation and phosphorylation. SLC1A3 has two known isoforms (59.5 and 55 kDa) formed by alternative splicing. Mutations in the SLC1A3 gene have been linked to episodic ataxia and hemiplegia (PMID: 16116111) while other mutations result in a form of SLC1A3 (E219D) which influences Tourette syndrome (PMID: 21233784).

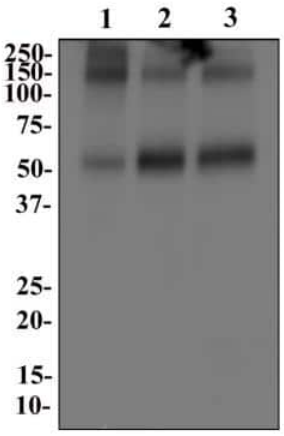
Synonyms: EA6; EAAT1; GLAST; GLAST1

Protein Families: Transmembrane

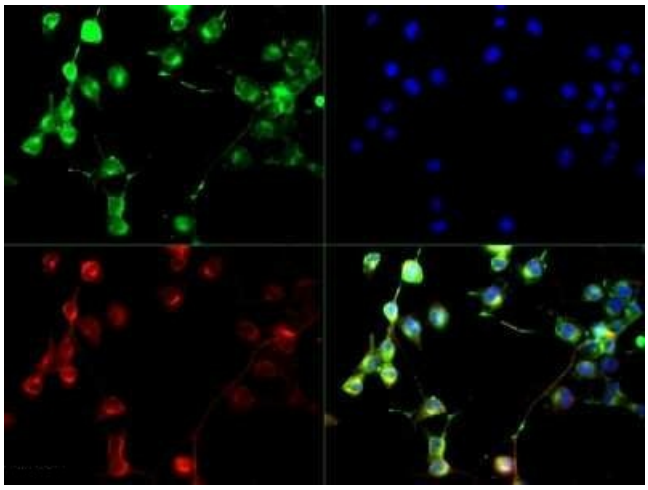
Product images:



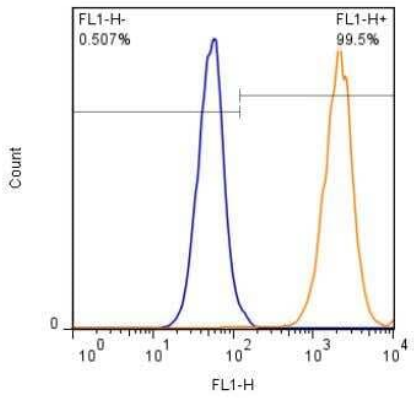
Flow (Intracellular): EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - Staining of HEK293 cells (1 x 10^6 cells/mL) with AF488 conjugated EAAT-1 antibody (orange) stained at a dilution of 1:500. Shown with rIgG (AF488) isotype control (blue).



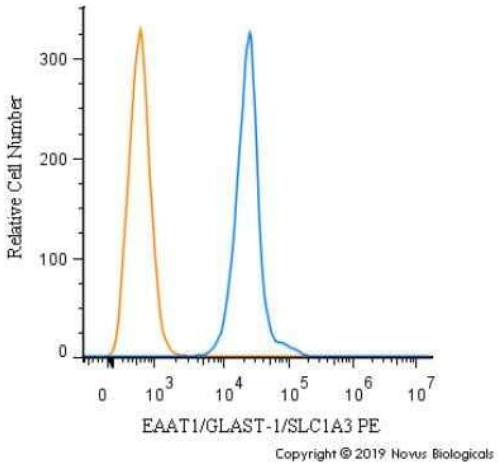
Western Blot: EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - Analysis of SLC1A3 in 1. Human brain 2. Mouse brain and 3. Rat brain whole cell lysates.



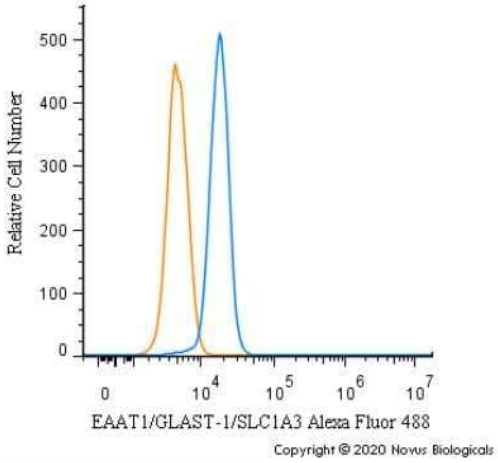
Immunocytochemistry/Immunofluorescence: EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - SLC1A3 antibody was tested at 1:250 in Neuro2A cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red). Image objective 40X.



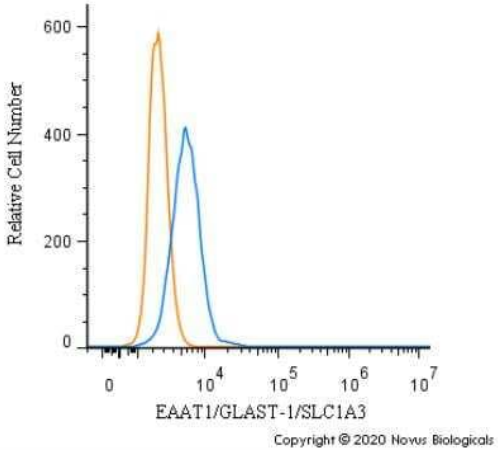
Flow (Intracellular): EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - Intracellular staining of HEK293 cells (1 x 10^6 cells/mL) with SLC1A3 antibody (orange) stained at a dilution of 1:500. Detected with a GtxRb Dylight 488 secondary. Shown with the secondary control (blue).



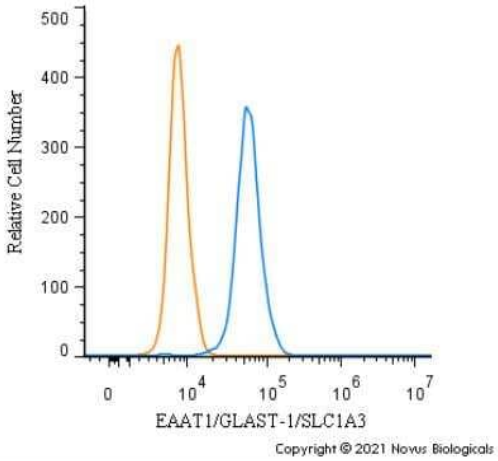
Flow Cytometry: EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - An intracellular stain was performed on Hek293 cells with EAAT1/GLAST-1/SLC1A3 antibody TA336274PE (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeablized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Phycoerythrin.



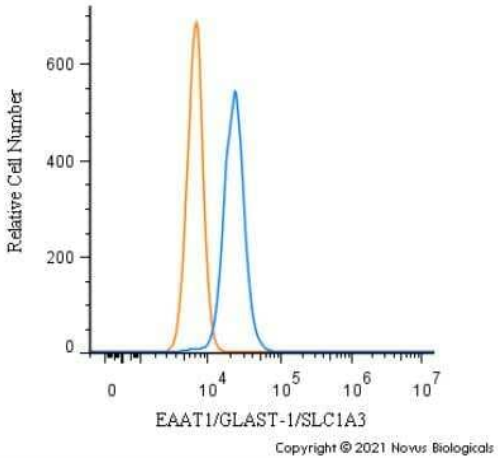
Flow Cytometry: EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - An intracellular stain was performed on Hek293 cells with EAAT1/GLAST-1/SLC1A3 Antibody TA336274AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



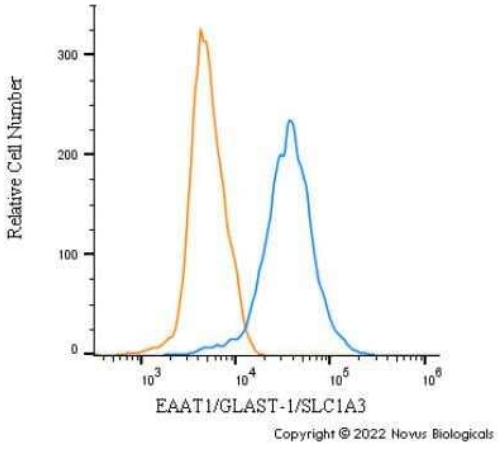
Flow Cytometry: EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - An intracellular stain was performed on U937 cells with SLC1A3 Antibody TA336274 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



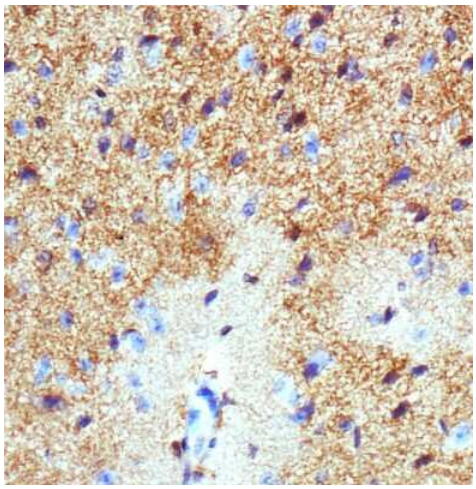
Flow Cytometry: EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - An intracellular stain was performed on Caco-2 cells with SLC1A3 Antibody TA336274 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



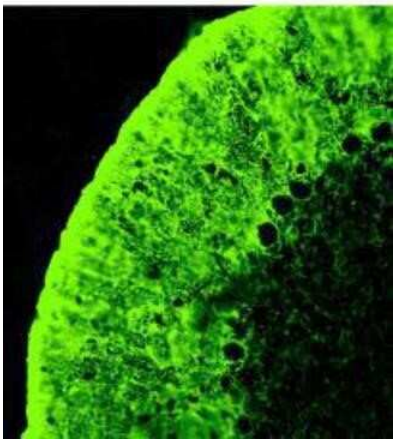
Flow Cytometry: EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - An intracellular stain was performed on Neuro2a cells with SLC1A3 Antibody TA336274 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



Flow Cytometry: EAAT1/GLAST-1/SLC1A3 Antibody - BSA Free TA336274 - An intracellular stain was performed on rat FR cells with EAAT1/GLAST-1/SLC1A3 Antibody TA336274 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



Immunohistochemistry-Paraffin: EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - Analysis of SLC1A3 on mouse brain.



Immunohistochemistry: EAAT1/GLAST-1/SLC1A3 Antibody TA336274 - Staining of SLC1A3 in rat cerebellum sections