

Datasheet for ABIN7043663

anti-SLC1A3 antibody (Extracellular) (FITC)



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2 Images

Overview

Quantity:	50 µL
Target:	SLC1A3
Binding Specificity:	AA 188-200, Extracellular
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SLC1A3 antibody is conjugated to FITC
Application:	Flow Cytometry (FACS), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to Excitatory Amino Acid Transporter 1 (EAAT1, GLAST) Conjugated to the Fluorescent Dye FITC
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)KQFKTSYEKRSFK, corresponding to amino acids 188-200 of rat EAAT1
Isotype:	IgG
Specificity:	2nd extracellular loop
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Mouse - identical, human 12,13 amino acid residues identical
Characteristics:	Anti-EAAT1 (GLAST) (extracellular) Antibody (ABIN7043662, ABIN7044352 and ABIN7044353)

Product Details

is a highly specific antibody directed against an epitope of rat Excitatory amino acid transporter 1. The antibody can be used in western blot, immunohistochemistry and live cell imaging applications. It has been designed to recognize EAAT1 from rat, human and mouse samples.

\nAnti-EAAT1 (GLAST) (extracellular)-FITC Antibody (ABIN7043662, ABIN7044352 and ABIN7044353)-F is directly conjugated to fluorescein isothiocyanate (FITC). This labeled antibody can be used in immunofluorescent applications such as live cell direct flow cytometry.

Purification: Affinity purified on immobilized antigen.

Target Details

Target:	SLC1A3
Alternative Name:	SLC1A3 (SLC1A3 Products)
Background:	<p>Excitatory amino acid transporter 1, Sodium-dependent glutamate/aspartate transporter 1, GLAST-1, SLC1A3,Glutamate transporters play important roles in the termination of excitatory neurotransmission and in providing cells with glutamate for metabolic purposes.SLC1A3 (EAAT1) belongs to The SLC1 protein family which contains a range of human and prokaryotic glutamate and aspartate transporters. EAAT1 transports the acidic amino acids glutamate and aspartate against a concentration gradient generating a net movement of substrate and charge across the membrane. Glutamate transport by EAAT1 is coupled to the co-transport of three Na⁺ ions and one H⁺ ion, and the counter transport of one K⁺ ion¹.EAAT1 is mainly expressed in astrocytes but can also be found in oligodendrocytes. EAAT1, together with EAAT2, are responsible for the bulk of glutamate uptake in the brain. They have several important roles, including the termination of the synaptic effects of glutamate, prevention of potentially toxic accumulation of extracellular glutamate, supply of glutamate to the astrocyte for synthesis of glutamine, which is involved in ammonia detoxification and in the glutamine-glutamate cycle and signaling of the metabolic needs of nearby neurons and activation of glycolysis in astrocytes².EAAT1 has been implicated in the pathogenesis of episodic ataxia, a rare neurological disorder characterized by neonatal muscle stiffness and an exaggerated startle reflex induced by noise or touch³.</p> <p>Alternative names: EAAT1 (GLAST), Excitatory amino acid transporter 1, Sodium-dependent glutamate/aspartate transporter 1, GLAST-1, SLC1A3</p>
Gene ID:	29483
NCBI Accession:	NM_004172

Target Details

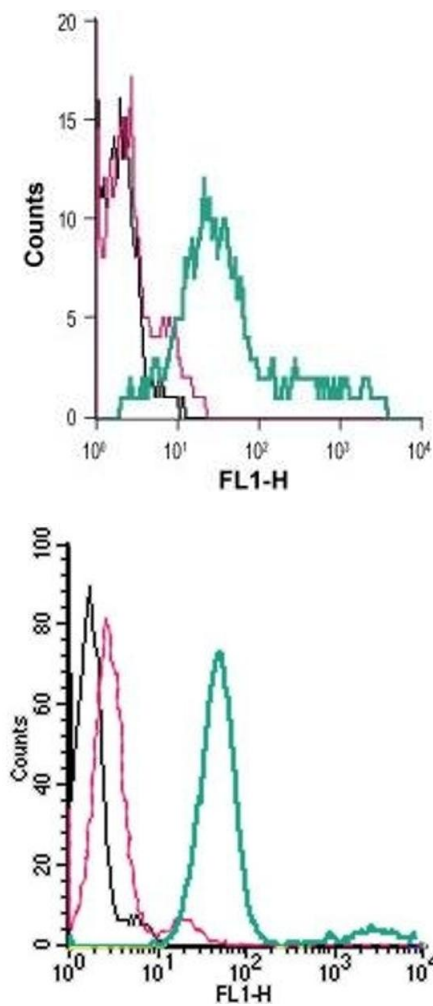
UniProt:	P24942
Pathways:	Sensory Perception of Sound , Synaptic Membrane , Dicarboxylic Acid Transport

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: N/A Application Dilutions Western blot wb: N/A
Comment:	Negative Control: (ABIN7582044) Blocking Peptide: (ABIN7236898)
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	50 µL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 1 % BSA with 0.05 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C, protected from the light, for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).



Flow Cytometry

Image 1. Cell surface detection of EAAT1 in live intact human MEG-01 megakaryoblastic leukemia cells: (black line) Cells.(red line) Cells + Rabbit IgG isotype control-FITC.(green line) Cells + Anti-EAAT1 (GLAST) (extracellular)-FITC Antibody (ABIN7043663, ABIN7045529, ABIN7045530 and ABIN7045531), (5 µg).

Flow Cytometry

Image 2. Cell surface detection of EAAT1 in live intact mouse BV-2 microglia cells: (black line) Cells.(red line) Cells + Rabbit IgG isotype control-FITC. (green line) Cells + Anti-EAAT1 (GLAST) (extracellular)-FITC Antibody (ABIN7043663, ABIN7045529, ABIN7045530 and ABIN7045531), (5 µg).