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Datasheet for 200-901-ML1

Eaat1 Antibody

Overview

Description:	Anti-Eaat1 (CHICKEN) Antibody - 200-901-ML1
Item No.:	200-901-ML1
Size:	100 µg
Applications:	IF, WB
Reactivity:	Rat
Host Species:	Chicken

Product Details

Background:	Slc1a3 (or Eaat1) is widely distributed throughout the brain. It is a potassium and sodium-dependent, high-affinity amino acid transporter that mediates the uptake of L-glutamate, L-aspartate, and D-aspartate. It 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. It mediates Cl(-) flux that is not coupled to amino acid transport; this avoids the accumulation of negative charges due to aspartate and Na(+) symport. Slc1a3 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. Slc1a3 can play a role in Episodic Ataxia, Type 6 and Wernicke Encephalopathy. Anti-Slc1a3 Antibody is useful for researchers interested in SIDS, Glucose Metabolism, and Glutamate and Amino Acid Binding.
Synonyms:	Chicken Anti-Slc1a3 Antibody, Chicken Anti-Eaat1 Antibody, Excitatory amino acid transporter 1, Glial glutamate transporter, Sodium-dependent glutamate/aspartate transporter 1, GLAST, GAST-1, Slc1a3, Eaat1
Host Species:	Chicken
Clonality:	Polyclonal
Format:	IgY

Target Details

Gene Name:	Slc1a3
Reactivity:	Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-Slc1a3 antibody was prepared from eggs of chickens laid after repeated immunizations with a synthetic peptide corresponding to a N-Terminal portion of rat Slc1a3 conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This affinity purified antibody is directed against rat Slc1a3. This product is an IgY fraction antibody purified from monospecific chicken egg yolks by a multi-step process which includes selective precipitation and salt fractionation followed by extensive dialysis against the buffer stated above. Blast analysis the immunogen sequence shows 100% identity with mouse and 91.7% human.
Relevant Links:	• UniProtKB - P24942 • NCBI - NP_001276870.1 • GeneID - 29483

Application Details

Tested Applications:	IF, WB
Application Note:	Anti-Slc1a3 Antibody has been tested in Western Blot and IF. Expect a band at ~54.4kDa in western blot using appropriate lysates. Positive control used: PND2-6 rat brain lysate in Western Blot and PND1 rat brain cells in Immunofluorescence.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000-1:50,000
IF:	15µg/mL
WB:	1:500

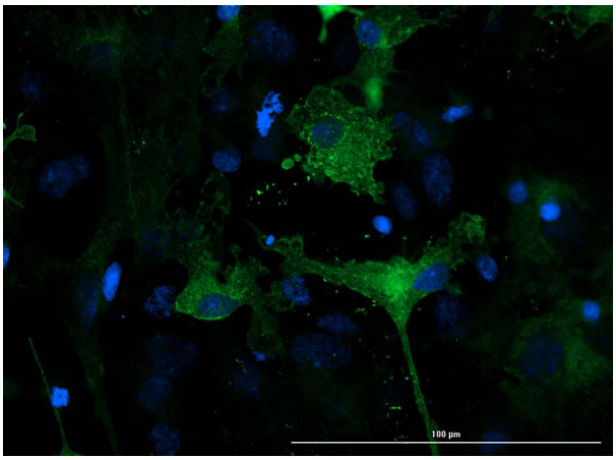
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	0.99 mg/ml by UV absorbance at 280 nm
Buffer:	0.002 M Sodium Phosphate, 0.15 M Sodium Chloride, pH 7.0
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

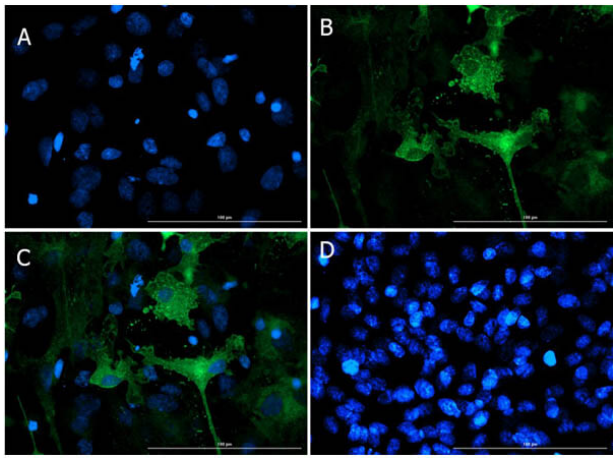
Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

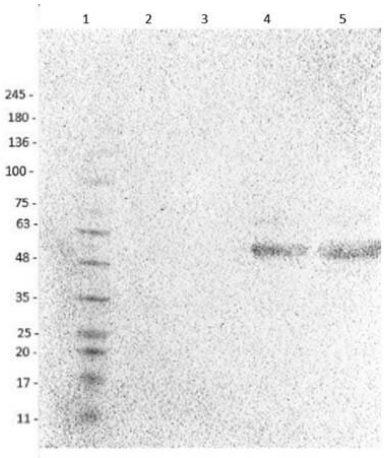
Images



Immunofluorescence Microscopy
Immunofluorescence of Chicken Anti-Eaat1 Antibody. Cells: Post-natal rat pup (PND1) heterogeneous brain cells. Fixative: 4% PFA. Permeabilization: 0.3% Triton X-100. Primary Antibody: Anti-Eaat1 Antibody at 15µg/mL overnight at 2-8°C. Secondary Antibody: Goat Anti-Chicken IgG DyLight™488 Conjugated (p/n 603-141-126) at 5µg/mL for 1hr at RT. Nuclear Counterstain: DAPI. Localization expected: Cell membrane (mitochondria, nucleus). Observed staining: punctate staining indicates mitochondrial detection.



Immunofluorescence Microscopy
Immunofluorescence of Chicken Anti-Eaat1 Antibody. Cells: Post-natal rat pup (PND1) heterogeneous brain cells. Fixative: 4% PFA. Permeabilization: 0.3% Triton X-100. Primary Antibody: Anti-Eaat1 Antibody at 15µg/mL overnight at 2-8°C. Secondary Antibody: Goat Anti-Chicken IgG DyLight™488 Conjugated (p/n 603-141-126) at 5µg/mL for 1hr at RT. Nuclear Counterstain: DAPI. Localization expected: Cell membrane (mitochondria, nucleus). Observed staining: mitochondrial. Image Staining: A). DAPI. B). Anti-Eaat1 + secondary. C). Merged A + B. D). Secondary Only.



Western Blot

Western Blot of Chicken Anti-Eaat1 Antibody. Lane 1: Opal Prestained Molecular Weight Marker (p/n MB-210-0500). Lane 2: HEK293T lysate [20µg] (p/n W09-001-GX5). Lane 3: Mouse Liver, adult, Whole Cell Lysate [20µg] (p/n W10-000-T020). Lane 4: Rat pup PND2-6 - minimal cortex brain lysate (20µg). Lane 5: Rat pup PND2-6 - minimal cortex brain lysate (40µg). Primary Antibody: Anti-Eaat1 Antibody at 1:500 for overnight at 2-8°C. Secondary Antibody: Goat Anti-Chicken IgG HRP conjugated (p/n 603-103-126) at 1:40,000 for 1hr at RT. Blocking: BlockOut buffer (p/n MB-073). Expected MW: ~54, 60 kDa (2 isoforms). Exposure: 60 seconds.

Disclaimer

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