

Datasheet for 200-901-ML1S**Eaat1 Antibody****Overview**

Description:	Anti-Eaat1 (CHICKEN) Antibody - 200-901-ML1S
Item No.:	200-901-ML1S
Size:	25 µL
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

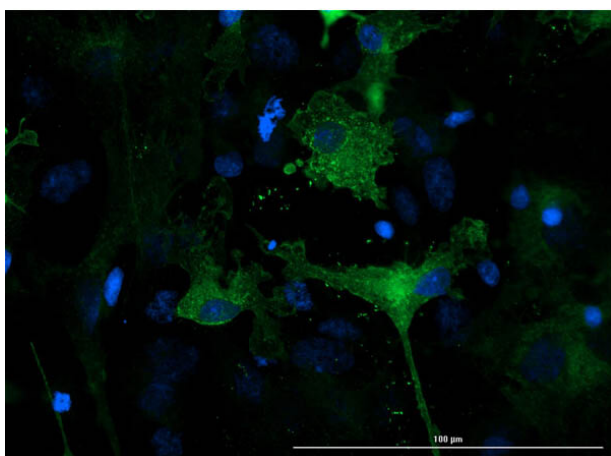
Shipping & Handling

Shipping Condition: Dry Ice

Storage Condition: Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.

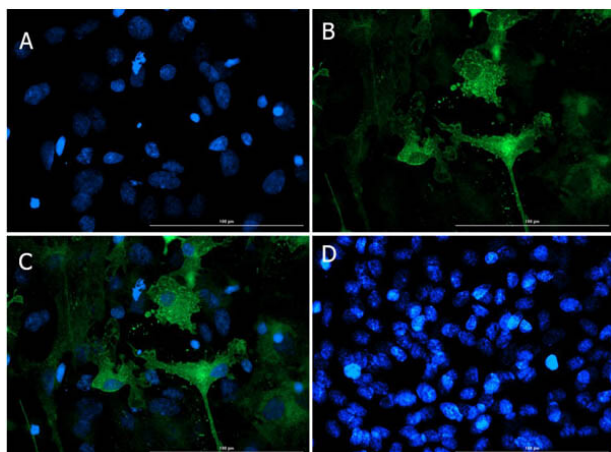
Expiration: Expiration date is one (1) year from date of receipt.

Images



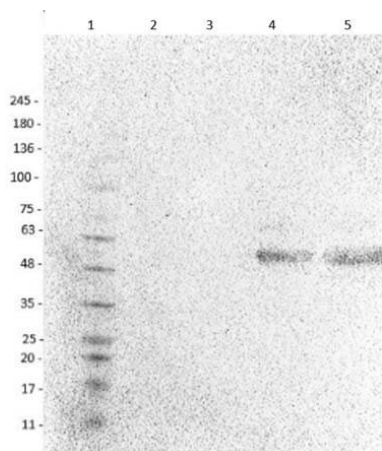
Immunofluorescence Microscopy

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

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.