

SLC38A1 Rabbit pAb

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Catalog # AP57675

Product Information

Application	WB
Primary Accession	Q9H2H9
Reactivity	Rat, Mouse
Predicted	Pig, Cat, Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	54048
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SLC38A1
Epitope Specificity	211-300/487
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane. Restricted to the somatodendritic compartment of neurons. Found in the cellular processes of neurons in the developing brain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Amino acid transporters play essential roles in the uptake of nutrients, production of energy, chemical metabolism, detoxification, and neurotransmitter cycling. SLC38A1 is an important transporter of glutamine, an intermediate in the detoxification of ammonia and the production of urea. Glutamine serves as a precursor for the synaptic transmitter, glutamate (Gu et al., 2001 [PubMed 11325958]).[supplied by OMIM, Mar 2008]

Additional Information

Gene ID	81539
Other Names	Sodium-coupled neutral amino acid symporter 1, Amino acid transporter A1, N-system amino acid transporter 2, Solute carrier family 38 member 1, System A amino acid transporter 1, System N amino acid transporter 1, SLC38A1
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

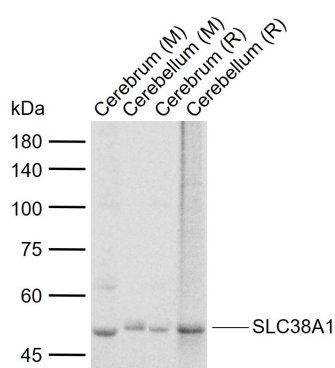
Protein Information

Name	SLC38A1
Function	Symporter that cotransports short-chain neutral amino acids and sodium ions from the extracellular to the intracellular side of the cell membrane (PubMed: 10891391 , PubMed: 20599747). The transport is elctrogenic, pH dependent and driven by the Na(+) electrochemical gradient (PubMed: 10891391). Participates in the astroglia-derived glutamine transport into GABAergic interneurons for neurotransmitter GABA de novo synthesis (By similarity). May also contributes to amino acid transport in placental trophoblasts (PubMed: 20599747). Also regulates synaptic plasticity (PubMed: 12388062).
Cellular Location	Cell membrane; Multi-pass membrane protein {ECO:0000250 UniProtKB:Q9JM15} Note=Restricted to the somatodendritic compartment of neurons. Found in the cellular processes of neurons in the developing brain {ECO:0000250 UniProtKB:Q9JM15}
Tissue Location	Expressed in the cerebral cortex by pyramidal and GABAergic neurons, astrocytes and other non-neuronal cells (at protein level). Expressed in placenta, heart, lung, skeletal muscle, spleen, stomach and testis (PubMed:10891391, PubMed:12388062, PubMed:15054072, PubMed:16148032). Highly expressed in cytotrophoblast cells from term placenta (PubMed:20599747).

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Images



Sample:

Lane 1: Mouse Cerebrum tissue lysates

Lane 2: Mouse Cerebellum tissue lysates

Lane 3: Rat Cerebrum tissue lysates

Lane 4: Rat Cerebellum tissue lysates

Primary: Anti-SLC38A1 (AP57675) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 54 kDa

Observed band size: 50 kDa

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