

Rabbit Anti-SLC38A2 antibody

SL12125R

Product Name SLC38A2

Chinese Name 氨基酸 Transporter2 抗体

Alias Amino acid transporter 2; Amino acid transporter A2; ATA2; SNAT2; KIAA1382; PRO1068; Protein 40-9-1; S38A2_HUMAN; SAT2; Slc38a2; Sodium-coupled neutral amino acid transporter 2; Solute carrier family 38 member 2; System A amino acid transporter; System A amino acid transporter 2; System A transporter 1; System N amino acid transporter 2.

Research Area Neurobiology Channel protein The cell membrane 受体 Transporter

Immunogen Species Rabbit

Clonality Polyclonal

React Species Mouse,Rat(predicted:Human,Dog,Pig,Cow,Horse,Sheep)

WB=1:500-2000 (Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 56kDa

Cellular localization cytoplasmic The cell membrane

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human SLC38A2/SNAT2:
21-150/506

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution Mouse,Rat(predicted:Human,Dog,Pig,Cow,Horse,Sheep)1M TBS(pH7.4) with 1% BSA, Mouse,Rat(predicted:Human,Dog,Pig,Cow,Horse,Sheep)3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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The sodium-coupled neutral amino acid transporters (SNAT) of the SLC38 gene family include System A subtypes SNAT1, SNAT2 and SNAT4 and System N subtypes SNAT3 and SNAT5. The SLC38 transporters are essential for the uptake of nutrients, energy production, metabolism, detoxification, and the cycling of neurotransmitters. SNAT2, also designated ATA2, PRO1068 and SAT2 is encoded by the human gene SLC38A2. The functional role of SNAT2 in the nervous system is unclear. Protein expression is notably enriched in the spinal cord and brain stem nuclei of the auditory system. System A transport proteins are also present in placental tissue. These SNAT proteins may play a significant role in fetal development and inhibition of the transport system has been associated with fetal growth retardation.

Function:

Functions as a sodium-dependent amino acid transporter. Mediates the saturable, pH-sensitive and electrogenic cotransport of neutral amino acids and sodium ions with a stoichiometry of 1:1. May function in the transport of amino acids at the blood-brain barrier and in the supply of maternal nutrients to the fetus through the placenta.

Subcellular Location:

Cell membrane. Insulin promotes recruitment to the plasma membrane from a pool localized in the trans-Golgi network or endosomes. Enriched in the somatodendritic compartment of neurons, it is also detected at the axonal shaft but excluded from the nerve terminal.

**Product
Detail**

Tissue Specificity:

Ubiquitously expressed. Widely expressed in the central nervous system with higher concentrations in caudal regions. Expressed by glutamatergic and GABAergic neurons together with astrocytes and other non-neuronal cells in the cerebral cortex (at protein level).

Post-translational modifications:

Polyubiquitination by NEDD4L regulates the degradation and the activity of SLC38A2.

Similarity:

Belongs to the amino acid/polyamine transporter 2 family.

SWISS:

Q96QD8

Gene ID:

112483

Database links:

[Entrez Gene: 338044](#) Cow

[Entrez Gene: 54407](#) Human

[Entrez Gene: 67760](#) Mouse

[Entrez Gene: 29642](#) Rat

[Olim: 605180](#) Human

[SwissProt: Q96QD8](#) Human

[SwissProt: Q8CFE6](#) Mouse

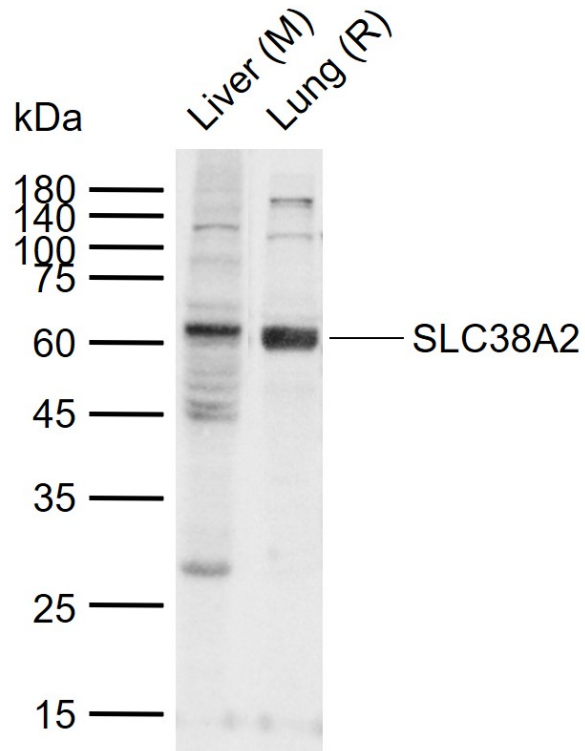
[SwissProt: Q9JHE5](#) Rat

[Unigene: 221847](#) Human

[Unigene: 46754](#) Mouse

[Unigene: 16393](#) Rat

**Product
Picture**



Sample:

Lane 1: Mouse Liver tissue lysates

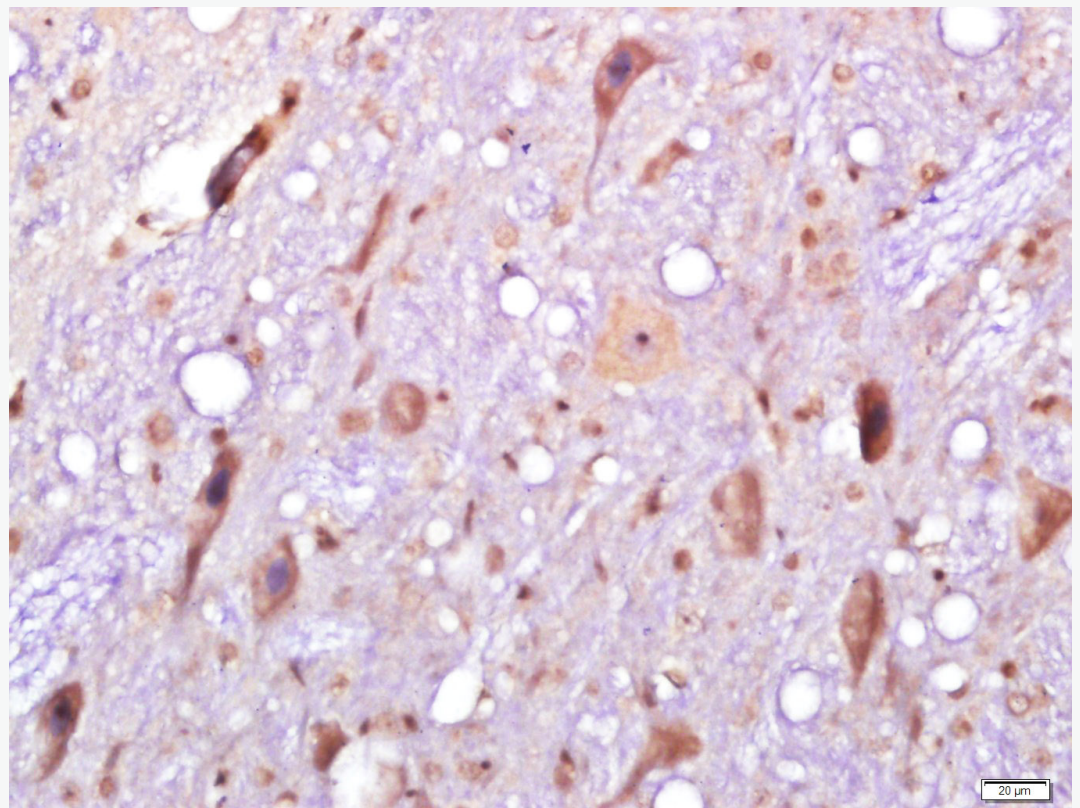
Lane 2: Rat Lung tissue lysates

Primary: Anti-SLC38A2 (SL12125R) at 1/200 dilution

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

Predicted band size: 56 kDa

Observed band size: 60 kDa



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SLC38A2) Polyclonal Antibody, Unconjugated (SL12125R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.