Datasheet for ABIN1386694

anti-SLC38A2 antibody (AA 21-150)

2 Images

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Overview

Quantity:	100 µL
Target:	SLC38A2
Binding Specificity:	AA 21-150
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SLC38A2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Flow Cytometry (FACS), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human SLC38A2/SNAT2
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Dog,Cow,Sheep,Pig,Horse
Purification:	Purified by Protein A.

Target Details

Target:	SLC38A2

Target Details

Alternative Name:	SLC38A2/SNAT2 (SLC38A2 Products)
Background:	Synonyms: Amino acid transporter 2, Amino acid transporter A2, ATA2, KIAA1382, PRO1068, Protein 40-9-1, S38A2_HUMAN, SAT2, Slc38a2, SNAT2, 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. Background: 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.
UniProt:	Q96QD8
Pathways:	Dicarboxylic Acid Transport

Application Details

Application Notes:	WB 1:300-5000
	ELISA 1:500-1000
	FCM 1:20-100
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200
	ICC 1:100-500

Restrictions:	For Research Use only

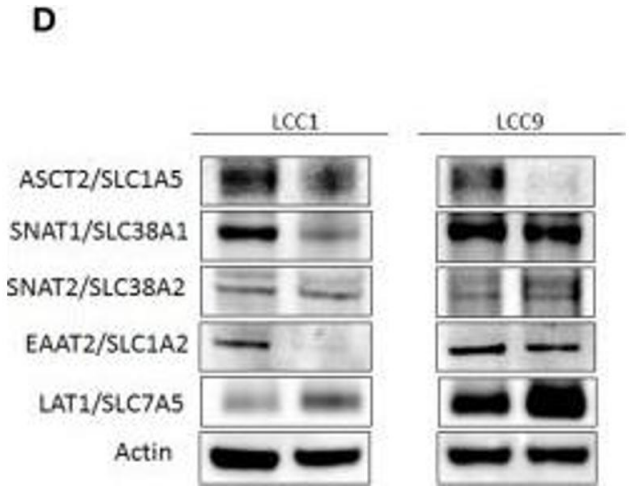
Handling

Format:	Liquid
Concentration:	1 μg/μL

Handling

Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

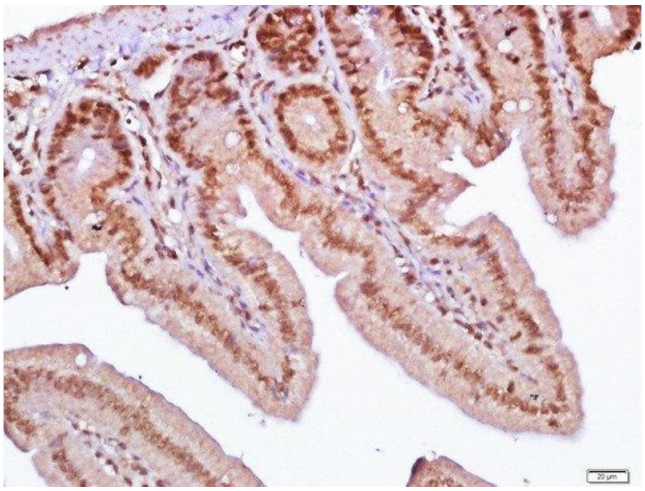
Images



Western Blotting

Image 1. Glutamine dependency is increased but ASCT2 is dispensable in antiestrogen resistant breast cancer cells. (A) Glutamine significantly (ANOVA, $p < 0.01$) increased cell proliferation in LCC9 cell compared with LCC1 cells in a dose-dependent manner. Changes in cell proliferation were determined by normalizing cell number measurements at different doses to 0 mM glutamine (vehicle was water). (B) LCC9 cells were significantly more sensitive to L-γ-Glutamyl-p-nitroanilide (GPNA), an inhibitor of ASCT2 (SLC1A5) and other sodium-dependent amino acid transporters. Bars represent the mean ± SE of relative number (normalized to vehicle control) for a single representative experiment performed in sextuplicate. All experiments were repeated three times. ANOVA, $p < 0.001$, *$p < 0.05$ for LCC9 vs. LCC1 for indicated concentrations. (C) Knockdown of ASCT2 levels with siRNA in LCC1 cells showed significant decrease in cell number at 72 h compared with that in LCC9 cells. ANOVA, $p = 0.05$, *$p \leq 0.01$ for LCC1 ASCT2-siRNA compared with LCC1 control-siRNA. (D) Western blotting showed decreased levels of ASCT2 protein in both cell lines following knockdown with ASCT2-siRNA. In LCC1 cells, protein levels of SNAT1 and EAAT2 were decreased while

LAT1 was increased with ASCT2 knockdown. In LCC9 cells, SNAT1 and EAAT2 levels were unchanged while LAT1 levels were increased with ASCT2 knockdown, actin was used as a protein loading control. - figure provided by CiteAb. Source: PMID31428575



Immunohistochemistry (Paraffin-embedded Sections)

Image 2. Paraformaldehyde-fixed, paraffin embedded mouse small intestine, 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 at 1:400 overnight at 4°C, followed by a conjugated secondary for 20 minutes and DAB staining.