

Rabbit anti-Human SLC3A2 Polyclonal Antibody | anti-SLC3A2 antibody

SLC3A2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA327165	Rabbit	Human	ELISA, Immunohistochemistry, Western Blot

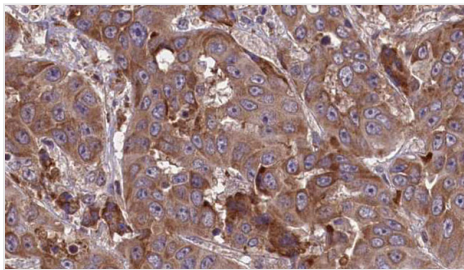
PRODUCT SYNONYMS

SLC3A2; Polyclonal Antibody; SLC3A2 Antibody; 4F2; 4F2 cell surface antigen heavy chain; 4F2 cell-surface antigen heavy chain; 4F2 heavy chain; 4F2 heavy chain antigen; 4F2_HUMAN; 4F2hc; 4T2HC; Antigen defined by monoclonal antibody 4F2 heavy chain; Antigen identified by monoclonal antibodies 4F2 TRA1.10 TROP4 and T43; CD 98; CD98; CD98 antigen; CD98 heavy chain; CD98HC; Heavy chain; Lymphocyte activation antigen 4F2 large subunit; MDU 1; MDU1; Monoclonal antibody 44D7; NACAE; Slc3a2; Solute carrier family 3 (activators of dibasic and neutral amino acid transport) member 2; Solute carrier family 3 member 2; anti-SLC3A2 antibody

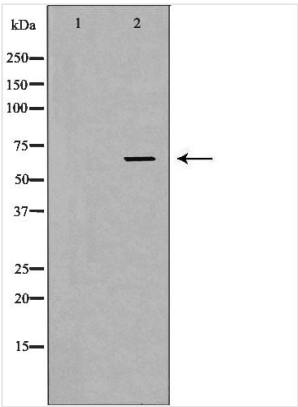
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	SLC3A2 antibody detects endogenous levels of total SLC3A2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	631
Applicable Applications for anti-SLC3A2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SLC3A2
Subcellular Location	Apical Cell Membrane. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Localized to the plasma membrane when associated with SLC7A5 or SLC7A8. Localized to the placental apical membrane. Located selectively at cell-cell adhesion sites (By similarity). Colocalized with SLC7A8/LAT2 at the basolateral membrane of kidney proximal tubules and small intestine epithelia. Expressed in both luminal and abluminal membranes of brain capillary endothelial cells (By similarity).
Tissue Specificity	Expressed ubiquitously in all tissues tested with highest levels detected in kidney, placenta and testis and weakest level in thymus. During gestation, expression in the placenta was significantly stronger at full-term than at the mid-trimester stage. Expressed in HUVECS and at low levels in resting peripheral blood T-lymphocytes and quiescent fibroblasts. Also expressed in fetal liver and in the astrocytic process of primary astrocytic gliomas. Expressed in retinal endothelial cells and in the intestinal epithelial cell line C2BBel.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog
Similarity	Pig (100%), Bovine (92%), Horse (92%), Sheep (92%), Rabbit (100%), Dog (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA327165 at 1/100 staining Human liver cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of Hela whole cell lysates, using SLC3A2 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-SLC3A2 antibody

Description: This gene is a member of the solute carrier family and encodes a cell surface, transmembrane protein. The protein exists as the heavy chain of a heterodimer, covalently bound through di-sulfide bonds to one of several possible light chains. The encoded transporter plays a role in regulation of intracellular calcium levels and transports L-type amino acids. Alternatively spliced transcript variants, encoding different isoforms, have been characterized.

Function: Required for the function of light chain amino-acid transporters. Involved in sodium-independent, high-affinity transport of large neutral amino acids such as phenylalanine, tyrosine, leucine, arginine and tryptophan. Involved in guiding and targeting of LAT1 and LAT2 to the plasma membrane. When associated with SLC7A6 or SLC7A7 acts as an arginine/glutamine exchanger, following an antiport mechanism for amino acid transport, influencing arginine release in exchange for extracellular amino acids. Plays a role in nitric oxide synthesis in human umbilical vein endothelial cells (HUVECs) via transport of L-arginine. Required for normal and neoplastic cell growth. When associated with SLC7A5/LAT1, is also involved in the transport of L-DOPA across the blood-brain barrier, and that of thyroid hormones triiodothyronine (T3) and thyroxine (T4) across the cell membrane in tissues such as placenta. Involved in the uptake of methylmercury (MeHg) when administered as the L-cysteine or D, L-homocysteine complexes, and hence plays a role in metal ion homeostasis and toxicity. When associated with SLC7A5 or SLC7A8, involved in the cellular activity of small molecular weight nitrosothiols, via the stereoselective transport of L-nitrosocysteine (L-CNSO) across the transmembrane. Together with ICAM1, regulates the transport activity LAT2 in polarized intestinal cells, by generating and delivering intracellular signals. When associated with SLC7A5, plays an important role in transporting L-leucine from the circulating blood to the retina across the inner blood-retinal barrier. When associated with LAPTM4B, recruits SLC3A2 and SLC7A5 to lysosomes to promote leucine uptake into these organelles and is required for mTORC1 activation (PubMed:25998567).

Subunit Structure: Disulfide-linked heterodimer of a glycosylated heavy chain and a non-glycosylated light chain (SLC7A5, SLC7A6, SLCA7A7, SLC7A8, SLC7A10 or SLCA7A11). Colocalizes with cadherins (By similarity). Interacts with FAM57A/CT120 and ICAM1. Constitutively and specifically associates with beta-1 integrins (alpha-2/beta-1, alpha-3/beta-1, alpha-5/beta-1 and alpha-6/beta-1), but minimally with alpha-4/beta-1. Interacts with LAPTM4B; recruits SLC3A2 and SLC7A5 to lysosomes to promote leucine uptake into these organelles and is required for mTORC1 activation (PubMed:25998567).

Post-translational Modifications: Phosphorylation on Ser-406; Ser-408 or Ser-410 and on Ser-527 or Ser-531 by ecto-protein kinases favors heterotypic cell-cell interactions.

Similarity: Belongs to the SLC3A transporter family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	61744477
NCBI GeneID	6520
NCBI Accession #	NP_001012680.1
NCBI GenBank Nucleotide #	NM_001012662.2
UniProt Accession #	P08195; Q13543

Molecular Weight	Observed: 67 kDa Predicted: 68 kDa
NCBI Official Full Name	4F2 cell-surface antigen heavy chain isoform b
NCBI Official Synonym Full Names	solute carrier family 3 member 2
NCBI Official Symbol	SLC3A2
NCBI Official Synonym Symbols	4F2; CD98; MDU1; 4F2HC; 4T2HC; NACAE; CD98HC
NCBI Protein Information	4F2 cell-surface antigen heavy chain
UniProt Protein Name	4F2 cell-surface antigen heavy chain
UniProt Gene Name	SLC3A2
UniProt Synonym Gene Names	MDU1; 4F2hc

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/slc3a2-antibody-immunohistochemistry-western-blot-elisa/327165>