Product Name: CD98 Rabbit Polyclonal Antibody
Catalog #: APRab08493

Summary

Production Name	CD98 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	SLC3A2
Alternative Names	SLC3A2; MDU1; 4F2 cell-surface antigen heavy chain; 4F2hc; 4F2 heavy chain antigen; Lymphocyte activation antigen 4F2 large subunit; CD98
Gene ID	6520.0
SwissProt ID	P08195. The antiserum was produced against synthesized peptide derived from the C-terminal region of human SLC3A2. AA range:491-540

Application

Dilution Ratio	WB 1:500-1:2000, ELISA 1:10000.Not yet tested in other applications.
Molecular Weight	69kDa

Background

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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. [provided by RefSeq, Nov 2010],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.,induction:Expression is induced in resting peripheral blood T-lymphocytes following PHA stimulation. Expression increases at the time of maximal DNA synthesis, in fibroblasts stimulated to divide. Expression and the uptake of leucine is stimulated in mononuclear, cytotrophoblast-like choriocarcinoma cells by combined treatment with PMA and calcium ionophore.,mass spectrometry: PubMed:11840567,miscellaneous:Arginine uptake is inhibited by increasing concentrations of leucine in the presence of Na(+).,similarity:Belongs to the SLC3A transporter family.,subcellular location: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.,subunit: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.,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 Caco2-BBE.,

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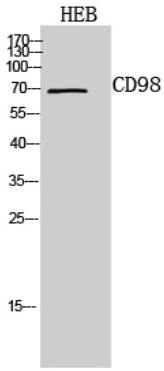
Research Area

Image Data



Western Blot analysis of HEB cells using CD98 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000

Note

For research use only.