

Product datasheet

Anti-CD98 antibody ab232725

7 Images

Overview

Product name	Anti-CD98 antibody
Description	Rabbit polyclonal to CD98
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB
Species reactivity	Reacts with: Human, Pig
Immunogen	<p>Recombinant fragment (His-tag) corresponding to Human CD98 aa 213-349. N-terminal tag. Expressed in E. coli.</p> <p>Sequence:</p> <p>LPAQKWWHTGALYRIGDLQAFQGHGAGNLAGLKGRLL DYSSLKVKGLVLG PIHKNQKDDVAQTDLLQIDPNFGSKEDFDSLLQSAKK KSIRVILDLTPNY RGENSWFSTQVDTVATKVKDALEFWLQAGVDGFQVR D</p> <p>Database link: P08195</p> <p style="text-align: right;"> Run BLAST with  Run BLAST with</p>
Positive control	WB: Recombinant human CD98, pig kidney tissue lysate, human serum and HeLa whole cell lysate. IHC-P: Human liver, stomach cancer and stomach tissue.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.4</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituents: PBS, 50% Glycerol</p>
Purity	Protein A purified
Purification notes	Antigen-specific affinity chromatography followed by Protein A affinity chromatography.
Clonality	Polyclonal

Isotype

IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab232725** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 5 - 20 µg/ml.
WB		Use a concentration of 0.2 - 2 µg/ml. Predicted molecular weight: 68 kDa.

Target

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.

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 C2BBE1.

Sequence similarities

Belongs to the SLC3A transporter family.

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.

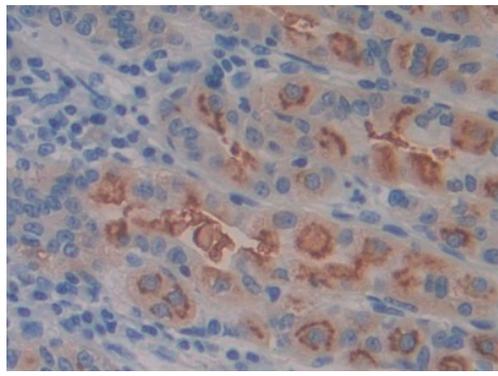
Cellular localization

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).

Form

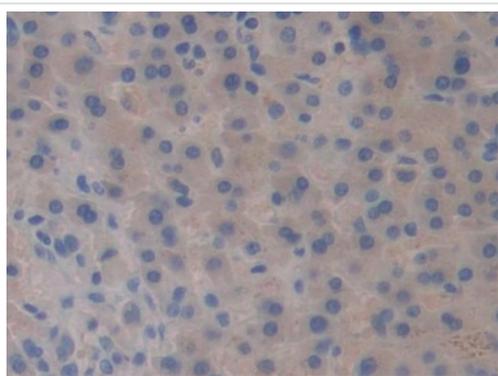
There are 4 isoforms produced by alternative splicing.

Images



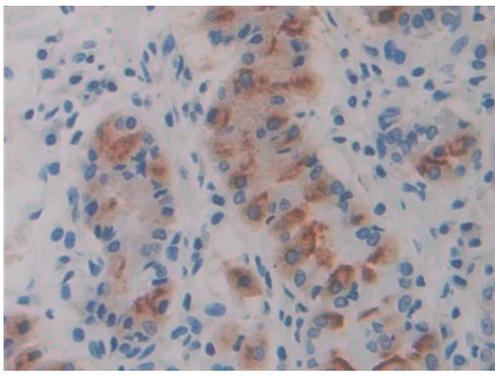
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD98 antibody (ab232725)

Formalin-fixed, paraffin-embedded human stomach cancer tissue stained for CD98 using ab232725 at 20 µg/ml in immunohistochemical analysis. DAB staining.



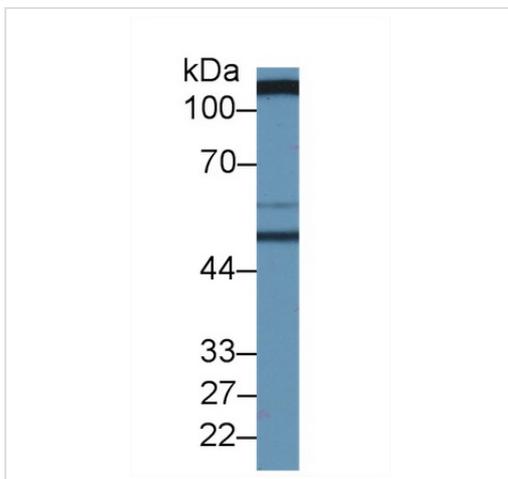
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD98 antibody (ab232725)

Formalin-fixed, paraffin-embedded human liver tissue stained for CD98 using ab232725 at 20 µg/ml in immunohistochemical analysis. DAB staining.



Formalin-fixed, paraffin-embedded human stomach tissue stained for CD98 using ab232725 at 20 $\mu\text{g/ml}$ in immunohistochemical analysis. DAB staining.

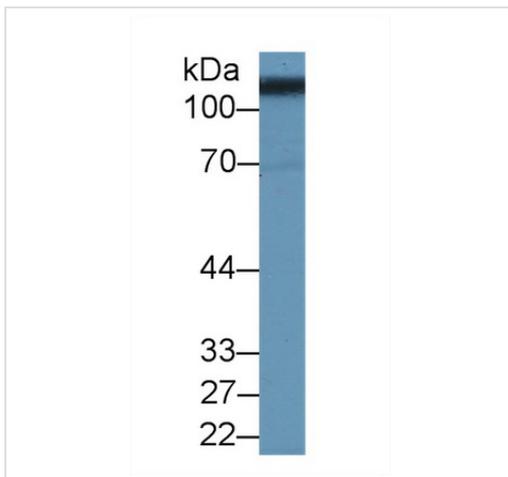
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD98 antibody (ab232725)



Anti-CD98 antibody (ab232725) at 2 $\mu\text{g/ml}$ + Human serum

Predicted band size: 68 kDa

Western blot - Anti-CD98 antibody (ab232725)



Anti-CD98 antibody (ab232725) at 2 $\mu\text{g/ml}$ + Pig kidney tissue lysate

Predicted band size: 68 kDa

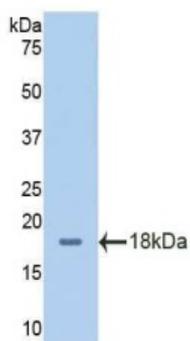
Western blot - Anti-CD98 antibody (ab232725)



Western blot - Anti-CD98 antibody (ab232725)

Anti-CD98 antibody (ab232725) at 2 µg/ml + HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate

Predicted band size: 68 kDa



Western blot - Anti-CD98 antibody (ab232725)

Anti-CD98 antibody (ab232725) at 2 µg/ml + Recombinant human CD98 protein

Predicted band size: 68 kDa

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