## Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-CD98 antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit polyclonal to CD98</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: IHC-P, WB</td>
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<tr>
<td><strong>Species reactivity</strong></td>
<td>Reacts with: Human, Pig</td>
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<tr>
<td><strong>Immunogen</strong></td>
<td>Recombinant fragment (His-tag) corresponding to Human CD98 aa 213-349. N-terminal tag. Expressed in E. coli. Sequence: LPAQKWHTGALYRIGDLQAFQGHAGNLGLKGR DYLSSLKVKGLVL GPHKNQKDVAQTDLLQIDPNFSKEDFSLLQSAKK KSIRVILDTPNY RGENSWFSTQVDVTATKVKALEFWLQAGVDGFQVR D</td>
</tr>
<tr>
<td><strong>Database link</strong></td>
<td>P08195</td>
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### 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

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
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</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>
| **Storage buffer** | pH: 7.40  
Preservative: 0.02% Sodium azide  
Constituents: PBS, 50% Glycerol |
| **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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>IHC-P</td>
<td>Use a concentration of 5 - 20 µg/ml.</td>
<td></td>
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<tr>
<td>WB</td>
<td>Use a concentration of 0.2 - 2 µg/ml. Predicted molecular weight: 68 kDa.</td>
<td></td>
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</table>

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).
There are 4 isoforms produced by alternative splicing.

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

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 μg/ml in immunohistochemical analysis. DAB staining.

**Western blot - Anti-CD98 antibody (ab232725)**

- **Anti-CD98 antibody (ab232725) at 2 μg/ml + Human serum**
  - **Predicted band size:** 68 kDa

- **Anti-CD98 antibody (ab232725) at 2 μg/ml + Pig kidney tissue lysate**
  - **Predicted band size:** 68 kDa
Anti-CD98 antibody (ab232725) at 2 µg/ml + HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate

**Predicted band size:** 68 kDa

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

**Predicted band size:** 68 kDa

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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