

## Product datasheet

# Anti-CD98 antibody [UM7F8] ab193364

### Overview

<b>Product name</b>	Anti-CD98 antibody [UM7F8]
<b>Description</b>	Mouse monoclonal [UM7F8] to CD98
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> IP, WB, IHC-Fr, Flow Cyt, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Tissue, cells or virus corresponding to Human CD98. Molt 13 T cell line.
<b>Positive control</b>	HL60, Jurkat, MG63, HUT-78, K562, YT, U937 and HepG2 cells, Tonsil.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	Preservative: 0.05% Sodium azide Constituents: 99% PBS, 0.05% BSA
<b>Purification notes</b>	ab193364 was purified from Bioreactor Concentrate by Protein A/G.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	UM7F8
<b>Isotype</b>	IgG1

### Applications

Our [Abpromise guarantee](#) covers the use of **ab193364** 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
IP		Use at an assay dependent concentration. Use 1-2µg/500µg protein.
WB		Use a concentration of 0.5 - 1 µg/ml. Predicted molecular weight: 67 kDa.

Application	Abreviews	Notes
IHC-Fr		Use a concentration of 0.5 - 1 µg/ml.
Flow Cyt		Use 0.5-1µg for 10 <sup>6</sup> cells. <a href="#">ab170190</a> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
ICC/IF		Use a concentration of 0.5 - 1 µg/ml.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	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.
<b>Sequence similarities</b>	Belongs to the SLC3A transporter family.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	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).
<b>Form</b>	There are 4 isoforms produced by alternative splicing.

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

## **Our Abpromise to you: Quality guaranteed and expert technical support**

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

## **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors