abcam

Product datasheet

Recombinant Human CD98 protein ab152060

Description

Product name	Recombinant Human CD98 protein
Purity	> 95 % SDS-PAGE. Purity is greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE.
Endotoxin level	< 1.000 Eu/µg
Expression system	HEK 293 cells
Accession	**P08195**
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	RAPRCRELPAQKWWHTGALYRIGDLQAFQGHGAGNLAGL KGRLDYLSSLK VKGLVLGPIHKNQKDDVAQTDLLQIDPNFGSKEDFDSLLQ SAKKKSIRVI LDLTPNYRGENSWFSTQVDTVATKVKDALEFWLQAGVD GFQVRDIENLKD ASSFLAEWQNITKGFSEDRLLIAGTNSSDLQQILSLLESNK DLLLTSSYL SDSGSTGEHTKSLVTQYLNATGNRWCSWSLSQARLLTSF LPAQLLRLYQL MLFTLPGTPVFSYGDEIGLDAAALPGQPMEAPVMLWDES SFPDIPGAVSA NMTVKGQSEDPGSLLSLFRRLSDQRSKERSLLHGDFHAF SAGPGLFSYIR HWDQNERFLVVLNFGDVGLSAGLQASDLPASASLPAKA DLLLSTQPGREE GSPLELERLKLEPHEGLLLRFPYAAVDHHHHHH
Predicted molecular weight	48 kDa including tags
Amino acids	206 to 630
Tags	His tag C-Terminus

Specifications

Our **Abpromise guarantee** covers the use of **ab152060** in the following tested applications.

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

Applications	SDS-PAGE HPLC
Form	Lyophilized

Preparation and Storage

Stability and Storage	Shipped at 4°C. The lyophilized protein is stable for a few weeks at room temperature. Store at -20°C long term. pH: 7.20 Constituents: 94% Phosphate Buffer, 5% Trehalose, 0.88% Sodium chloride
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. Dissolve the lyophilized protein in 1X PBS. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. For long term storage aliquot and store at < -20°C.

General Info

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).

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