

ARG43270 anti-CD98 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes CD98
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	CD98
Species	Human
Immunogen	Recombinant fusion protein corresponding to aa. 360-529 of Human CD98 (NP_001013269.1).
Conjugation	Un-conjugated
Alternate Names	MDU1; 4T2HC; CD98; 4F2hc; 4F2 cell-surface antigen heavy chain; CD98HC; 4F2HC; NACAE; Solute carrier family 3 member 2; CD antigen CD98; 4F2 heavy chain antigen; Lymphocyte activation antigen 4F2 large subunit; 4F2

Application Instructions

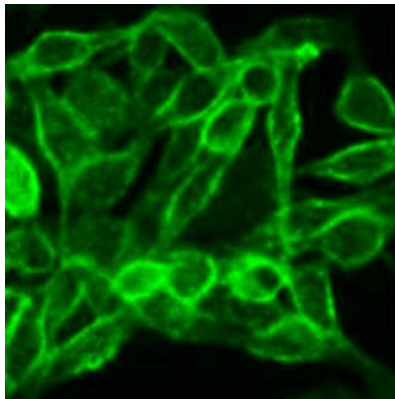
Application table	Application	Dilution
	IHC-P	1:50 - 1:200
	WB	1:500 - 1:2000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	HeLa	
Observed Size	~ 80 - 93 kDa	

Properties

Form	Liquid
Purification	Affinity purified.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

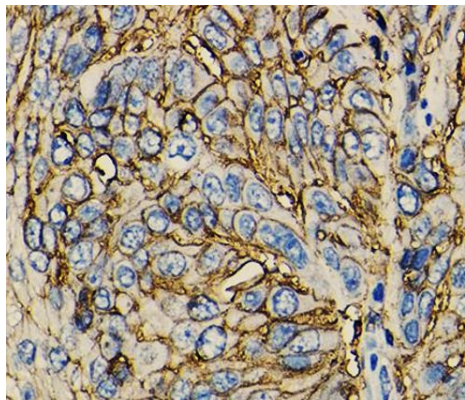
Bioinformation

Gene Symbol	SLC3A2
Gene Full Name	solute carrier family 3 (amino acid transporter heavy chain), member 2
Background	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	Component of several heterodimeric amino acid transporter complexes (PubMed:11557028, PubMed:9829974, PubMed:9751058, PubMed:10391915, PubMed:10574970, PubMed:11311135). The precise substrate specificity depends on the other subunit in the heterodimer (PubMed:9829974, PubMed:9751058, PubMed:10391915, PubMed:10574970, PubMed:30867591, PubMed:10903140). The heterodimer with SLC3A2 functions as sodium-independent, high-affinity transporter that mediates uptake of large neutral amino acids such as phenylalanine, tyrosine, L-DOPA, leucine, histidine, methionine and tryptophan (PubMed:9751058, PubMed:11557028, PubMed:11311135, PubMed:11564694, PubMed:12117417, PubMed:12225859, PubMed:25998567, PubMed:30867591). The complexes with SLC7A6 and SLC7A7 mediate uptake of dibasic amino acids (PubMed:9829974, PubMed:10903140). The complexes function as amino acid exchangers (PubMed:11557028, PubMed:10903140, PubMed:12117417, PubMed:12225859, PubMed:30867591). Required for targeting of SLC7A5 and SLC7A8 to the plasma membrane and for channel activity (PubMed:9751058, PubMed:11311135, PubMed:30867591). Plays a role in nitric oxide synthesis in human umbilical vein endothelial cells (HUVECs) via transport of L-arginine. The heterodimer with SLC7A5/LAT1 may play a role in the transport of L-DOPA across the blood-brain barrier (By similarity). May mediate blood-to-retina L-leucine transport across the inner blood-retinal barrier (By similarity). The heterodimer with SLC7A5/LAT1 can mediate the transport of thyroid hormones triiodothyronine (T3) and thyroxine (T4) across the cell membrane (PubMed:11564694, PubMed:12225859). 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 (PubMed:15769744). The heterodimer with SLC7A5 is involved in the uptake of toxic methylmercury (MeHg) when administered as the L-cysteine or D,L-homocysteine complexes (PubMed:12117417). Together with ICAM1, regulates the transport activity SLC7A8 in polarized intestinal cells, by generating and delivering intracellular signals. When associated with LAPT4B, the heterodimer formed by SLC3A2 and SLC7A5 is recruited to lysosomes to promote leucine uptake into these organelles, and thereby mediates mTORC1 activation (PubMed:25998567). [UniProt]
Calculated Mw	68 kDa
PTM	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. [UniProt]
Cellular Localization	Apical cell membrane; Single-pass type II membrane protein. Melanosome. Note=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. Colocalized with SLC7A8/LAT2 at the basolateral membrane of kidney proximal tubules and small intestine epithelia. [UniProt]



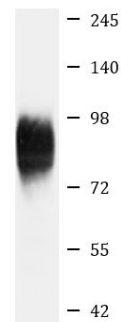
ARG43270 anti-CD98 antibody ICC/IF image

Immunofluorescence: HeLa cells stained with ARG43270 anti-CD98 antibody at 1:100 dilution.



ARG43270 anti-CD98 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human esophageal cancer tissue stained with ARG43270 anti-CD98 antibody at 1:100 dilution.

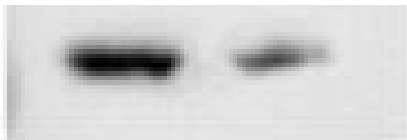


HeLa

ARG43270 anti-CD98 antibody WB image

Western blot: 25 µg of HeLa cell lysate stained with ARG43270 anti-CD98 antibody at 1:1000 dilution.

SLC3A2



ARG43270 anti-CD98 antibody WB image

Western blot: GBC-SD cells stained with ARG43270 anti-CD98 antibody.

From Desen Fan et al. Heliyon (2024), [doi: 10.1016/j.heliyon.2024.e30260](https://doi.org/10.1016/j.heliyon.2024.e30260), Fig. 2. E.