ARG62957
anti-CD98 antibody [MEM-108] (FITC)

Package: 100 tests
Store at: 4°C

Summary

Product Description	FITC-conjugated Mouse Monoclonal antibody [MEM-108] recognizes CD98
Tested Reactivity	Hu
Tested Application	FACS
Specificity	The clone MEM-108 reacts with CD98, a 125 kDa disulfide-linked heterodimer (80 kDa glycosylated heavy chain + 45 kDa non-glykosylated light chain). CD98 is expressed on T lymphocytes (upon activation) and activated NK cells; it is also present at low levels on B lymphocytes, NK cells, monocytes and platelets. HLDA VI; WS Code BP 409 HLDA VI; WS Code NL N-L017
Host	Mouse
Clonality	Monoclonal
Clone	MEM-108
Isotype	IgG1
Target Name	CD98
Species	Human
Immunogen	RAJI human Burkitt's lymphoma cell line
Conjugation	FITC
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
FACS	20 µl / 10^6 cells

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

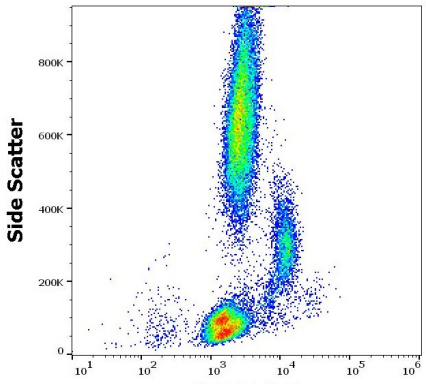
Form	Liquid
Purification Note	The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.
Buffer	PBS, 15 mM Sodium azide and 0.2% (w/v) high-grade protease free BSA
Preservative	15 mM Sodium azide
Stabilizer	0.2% (w/v) high-grade protease free BSA

Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

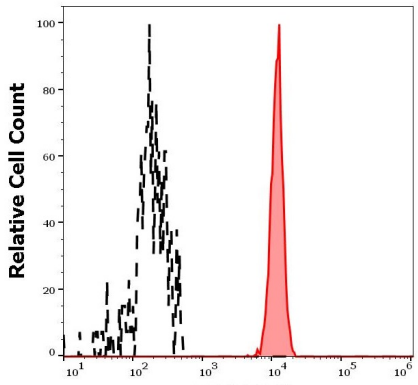
Database links	GeneID: 6520 Human Swiss-port # P08195 Human
Gene Symbol	SLC3A2
Gene Full Name	solute carrier family 3 (amino acid transporter heavy chain), member 2
Background	CD98 (4F2) is a type II transmembrane glycoprotein which serves as the heavy chain of the heterodimeric amino acid transporters (HATs). CD98, linked to various light chains by disulfide bond, is responsible for cell surface expression and basolateral localization of this transporter complex in polarized epithelial cells and also interacts with beta1 integrins and increases their affinity for ligand. Besides its roles in amino acid transport, CD98 is thus involved in cell fusion and activation. It is implicated in regulation of cellular differentiation, growth and apoptosis.
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. [UniProt]
Research Area	Developmental Biology antibody; Immune System antibody; Metabolism antibody; Signaling Transduction antibody
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.

Images



ARG62957 anti-CD98 antibody [MEM-108] (FITC) FACS image

Flow Cytometry: Human peripheral whole blood stained with ARG62957 anti-CD98 antibody [MEM-108] (FITC) (20 µl reagent / 100 µl of peripheral whole blood).



ARG62957 anti-CD98 antibody [MEM-108] (FITC) FACS image

Flow Cytometry: Separation of human monocytes (red-filled) from blood debris (black-dashed). Human peripheral whole blood stained with ARG62957 anti-CD98 antibody [MEM-108] (FITC) (20 µl reagent / 100 µl of peripheral whole blood).