



1P-268-T100

Monoclonal Antibody to CD98 Phycoerythrin (PE) conjugated (100 tests)

Clone:	MEM-108
Isotype:	Mouse IgG1
Specificity:	The antibody MEM-108 reacts with CD98, a 125 kDa disulfide-linked heterodimer (80 kDa glycosylated heavy chain + 45 kDa non-glycosylated 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
Regulatory Status:	RUO
Immunogen:	RAJI human Burkitt's lymphoma cell line
Species Reactivity:	Human
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
Expiration:	See vial label
Lot Number:	See vial label
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.

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Antibodies

References:

- *Liu X, Charrier L, Gewirtz A, Sitaraman S, Merlin D: CD98 and intracellular adhesion molecule I regulate the activity of amino acid transporter LAT-2 in polarized intestinal epithelia. *J Biol Chem.* 2003 Jun 27;278(26):23672-7.
- *Cho JY, Skubitz KM, Katz DR, Chain BM: CD98-dependent homotypic aggregation is associated with translocation of protein kinase Cdelta and activation of mitogen-activated protein kinases. *Exp Cell Res.* 2003 May 15;286(1):1-11.
- *Cai S, Bulus N, Fonseca-Siesser PM, Chen D, Hanks SK, Pozzi A, Zent R: CD98 modulates integrin beta1 function in polarized epithelial cells. *J Cell Sci.* 2005 Mar 1;118(Pt 5):889-99.
- *Dalton P, Christian HC, Redman CW, Sargent IL, Boyd CA: Differential effect of cross-linking the CD98 heavy chain on fusion and amino acid transport in the human placental trophoblast (BeWo) cell line. *Biochim Biophys Acta.* 2007 Mar;1768(3):401-10.
- *Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).

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