



A6-268-T025

## Monoclonal Antibody to CD98 Alexa Fluor® 647 conjugated (25 tests)

<b>Clone:</b>	MEM-108
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	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
<b>Immunogen:</b>	RAJI human Burkitt's lymphoma cell line
<b>Species Reactivity:</b>	Human
<b>Preparation:</b>	The purified antibody is conjugated with Alexa Fluor® 647 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
<b>Storage Buffer:</b>	The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
<b>Storage / Stability:</b>	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. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.
<b>Usage:</b>	The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (0.1 ml) is sufficient for 25 tests.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	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.

**For laboratory research only, not for drug, diagnostic or other use.**

**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.
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- \*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.
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EXBIO Praha | Nad Safinou II 341 | 252 42 Vestec u Prahy | Czech Republic  
Tel: +420 261 090 664 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz