Technical Data Sheet

PE Mouse Anti-Human CD98

Product Information

Material Number: 556077
Alternate Name: SLC3A2; CD98HC; 4F2; 4F2hc; MDU1; NACAE; 4T2HC
Size: 100 Tests
Vol. per Test: 20 µl
Clone: UM7F8
Immunogen: Human T-leukemic and Thymic Cell Lines
Isotype: Mouse (BALB/c) IgG1, κ
Reactivity: QC Testing: Human
Workshop: V T020; BP420
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description
CD98 is a disulfide-linked heterodimer composed of a ~80-85 kDa, type II membrane glycoprotein heavy chain, (CD98hc), and ~40-45 kDa light chain. The UM7F8 monoclonal antibody specifically recognizes CD98hc, which is also known as 4F2 heavy chain antigen (4F2hc). CD98 is broadly expressed on hematopoietic cells, including peripheral blood lymphocytes, monocytes and granulocytes (low), as well as non-hematopoietic cells, eg, intestinal epithelial cells. CD98 expression is upregulated on activated and proliferating cells. CD98hc is encoded by the SLC3A2 [solute carrier family 3 (amino acid transporter heavy chain), member 2] gene. CD98 reportedly functions in transmembrane amino acid transport and in the regulation of integrin signaling which are involved in the regulation of cellular activation, proliferation, and survival. The UM7F8 antibody is reportedly a functional antibody that can costimulate T cell proliferative responses.

Flow cytometric analysis of CD98 expression on human peripheral blood lymphocytes. Whole blood was stained with either PE Mouse Anti-Human CD98 (Cat. No. 556077; solid line histogram) or PE Mouse IgG1, κ Isotype Control (Cat. No. 555749; dashed line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). Fluorescent histograms were derived from gated events with the side and forward light-scattering characteristics of viable lymphocytes. Flow cytometry was performed on a BD FACS™Scan system.

Preparation and Storage
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.
The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application
Flow cytometry Routinely Tested

Suggested Companion Products

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<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use $1 \times 10^6$ cells in a 100-µl experimental sample (a test).

2. An isotype control should be used at the same concentration as the antibody of interest.

3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at wwwbdbiosciencescom/colors.

6. Please refer to wwwbdbiosciencescom/pharminengprotocols for technical protocols.

References


Kishimoto T. Tadamitsu Kishimoto .. et al., ed. Leucocyte typing VI : white cell differentiation antigens : proceedings of the sixth international workshop and conference held in Kobe, Japan, 10-14 November 1996. New York: Garland Pub.; 1997(Biology)