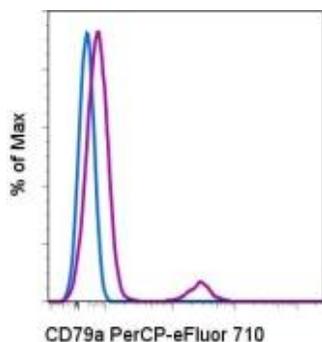


CD79a PerCP-eFluor[®] 710

Also Known As: mb-1

Catalog Number(s): 9046-0792-025 (25 tests), 9046-0792-120 (120 tests)



Fluorescence profiles of normal human peripheral blood lymphocytes unstained (blue histogram) or stained intracellularly with CD79a PerCP-eFluor[®] 710 (purple histogram).

Product Information

Contents: CD79a PerCP-eFluor[®] 710

Catalog Number(s): 9046-0792-025 (25 tests), 9046-0792-120 (120 tests)

Clone: HM47

Concentration: 5 uL (0.03 ug)/test (a test is defined as the amount that will stain 1 x 10⁶ cells in 100 uL)

Host/Isotype: Mouse IgG1, kappa

HLDA Workshop: V

Formulation: Aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer.



Storage Conditions: Store at 2-8°C.

Do not freeze.



Light-sensitive material.



Caution, contains Azide



Manufacturer: eBioscience, Inc., 10255 Science Center Drive, San Diego, CA 92121, USA



Authorized Representative: Bender MedSystems GmbH, an eBioscience Company
Campus Vienna Biocenter 2 A-1030 Vienna Austria

Intended Use

The HM47 fluorochrome-conjugated monoclonal antibody reacts with the human CD79a antigen. CD79a can be detected in human biological samples using immunological techniques.

Principles of the Test

Flow cytometry is a useful tool for simultaneously measuring multiple physical properties of individual particles (such as cells). Cells pass single-file through a laser beam. As each cell passes through the laser beam, the cytometer records how the cell or particle

scatters incident laser light and emits fluorescence. Using this flow cytometric analysis protocol, one can perform a simultaneous analysis of surface molecules at the single-cell level.

Description

The monoclonal antibody HM47 recognizes the cytoplasmic domain of CD79a, also known as mb-1. CD79a is a 47 kDa membrane glycoprotein that associates with CD79b to form the heterodimeric B cell receptor (BCR). This receptor is responsible for B cell signaling, resulting in activation, apoptosis or

anergy. Expression of CD79a is found throughout development from the earliest pre-B cell to plasma cells. CD79 is expressed on B cell neoplasms and some non-B cell malignancies such as AML. Unlike other antibodies that can be masked in B cell neoplastic cells, HM47 is a reliable antibody for recognizing CD79a and, as such, is a good marker for B cells.

Specimen Collection and Storage Instructions

Collect venous blood sample by venipuncture into a sterile blood collection tube using an appropriate anticoagulant (EDTA is recommended). Keep samples at room temperature (18-25°C). Prior to use, mix samples by gentle agitation.

Materials Required But Not Provided

- 12x75 mm test tubes
- Buffers (eBioscience Flow Cytometry Staining Buffer, Cat. No. 00-4222 recommended)
- Lysis Buffer (eBioscience 1X RBC Lysis Buffer, Cat. No. 00-4333 or eBioscience 1-step Fix/Lyse Solution (10X), Cat. No. 00-5333 recommended)
- For intracellular staining use IC Fixation Buffer and Permeabilization Buffer, Cat. No. 88-8823 (intracellular cytokine or cytoplasmic protein staining) or Foxp3 Buffer Set, Cat. No. 00-5523 (For nuclear protein staining). Refer to the Best Protocols section of the eBioscience website for the "Staining Intracellular Antigens for Flow Cytometry" protocols.
- Viability stain (7-AAD Viability Staining Solution, Cat. No. 00-6993 or Propidium Iodide Staining Solution, Cat. No. 00-6990 recommended)
- Automated pipettes
- Centrifuge
- Vortex mixer
- Ice bucket or refrigerator
- Flow cytometer

Test Protocol

NOTE: For intracellular staining, refer to the Best Protocols section of the eBioscience website for the "Staining Intracellular Antigens for Flow Cytometry" protocols.

1. Aliquot 100 µL of the test sample into tubes.
2. Add 5 µL of the appropriate antibody to each tube.
3. Incubate 30-60 minutes at 2-8°C. Alternatively, samples can be incubated at room temperature in the dark 15-30 minutes.
4. Add 2 ml of 1X RBC Lysis Buffer (at room temperature) per tube. Mix gently. (Alternatively, samples can be incubated with 2 mL 1-step Fix/Lyse Solution.)

5. Incubate samples in the dark at room temperature for 10 minutes. Do not exceed 15 minutes of incubation with the RBC Lysis Buffer.
6. Centrifuge samples at 300-400 x g for 5 minutes at room temperature, decant/aspirate supernatant and wash 1 time with 2 ml of Flow Cytometry Staining Buffer.
7. Centrifuge samples at 300-400 x g for 5 minutes at room temperature, decant/aspirate supernatant.
8. Resuspend stained cell pellet in 1 mL Flow Cytometry Staining Buffer and analyze samples on a flow cytometer.

Limitations

1. For optimal performance of fluorochrome conjugated antibodies, store vials at 2-8°C in the dark. Do not freeze.
2. Centrifuge the antibody vial prior to opening to recover the maximum volume.
3. Except where noted in the protocol, all staining should be done on ice or at 2-8°C with minimal exposure to light.

Performance Characteristics

Consistency of high-quality reagents is ensured by testing each lot of monoclonal antibody for conformance against characteristics of a standard reagent. Representative flow cytometric data is included where appropriate.

Evidence of Deterioration

For questions or concerns regarding the performance or quality of products received, please contact eBioscience Technical Support (see below).

References

Procedures for the Collection of Diagnostic Blood Specimens by Venipuncture (H3-A6), 3rd Edition published by the National Committee for Clinical Laboratory Standards.

Schlossman SF, Boumsell L, Gilks W, et al, eds. Leucocyte Typing V: White Cell Differentiation Antigens. Oxford University Press. New York. 1995.
Sakaguchi N, et al. B lymphocyte lineage-restricted expression of mb-1, a gene with CD3-like structural properties. EMBO J. 1988;7:3457-3464.