

Product: CD19APC

Cat. Ref: 19A1

Reagent provided: 100 test (20µl/test)

Description: Monoclonal Mouse Anti-Human CD19 APC, is recommended for use in flow cytometry for identification of human B cells associated approximately with 10% of peripheral blood lymphocytes 95,000 M.W. surface antigen. The conjugate is provided in liquid form in buffer containing 1% bovine serum albumin (BSA) (Lote: 113K1364 / SIGMA) and 0,09% NaN₃, pH 7.2.

Batch Number:

Clone: A3-B1

Isotype: IgG2a

Fluorochrome: Allophycocyanin (Febico, Far East Bio-Tech Co.)

Reactivity: The monoclonal antibody is directed against the CD19- antigen (B4-antigen), which is expressed on human B lymphocytes. The monoclonal antibody is B lineage-specific and reacts with early B-cell precursors, pre-pre-B-cells, pre-B- cells, B-cells, intermediate B-cells, mature B-cells and some plasmacytoid cells. Plasma cells were found to be negative. The monoclonal antibody does not react with other haemopoietic cells. The monoclonal antibody also reacts with pre-B-cell- lines, B lymphoblastoid cell-lines and Burkitt cell- lines, and with 50% of myeloma cell-lines. Virtually all non T-ALL, B-CLL and B-cell lymphomas were found to be positive, myeloma cells were found to be negative.

Specificity: 90-95 Kd MW lymphocyte surface antigen identified by monoclonal antibodies belonging to the CD19 cluster. Expressed from the earliest stages of B-progenitor development and on all peripheral B cells including germinal centre B cells, all B cell lines tested and B cell leukaemias tested. The antigen is lost on B cell maturation to plasma cells.

Storage: Store in the dark at 2-8 °C. Do not use after expiration date stamped on vial. If unexpected staining is observed which cannot be explained by variations in laboratory procedures and a problem with the product is suspected, contact our Technical Services. (tech@immunostep.com).

Application: It is recommended for use in flow cytometry. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 20 µl/10⁶ cells.

Precautions:

1. The device is not intended for clinical use including diagnosis, prognosis, and monitoring of a disease state, and it must not be used in conjunction with patient records or treatment.
2. This product contains sodium azide (NaN₃), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, sodium azide may react with lead and copper plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent metal azide build-up in plumbing.
3. As with any product derived from biological sources, proper handling procedures should be used.

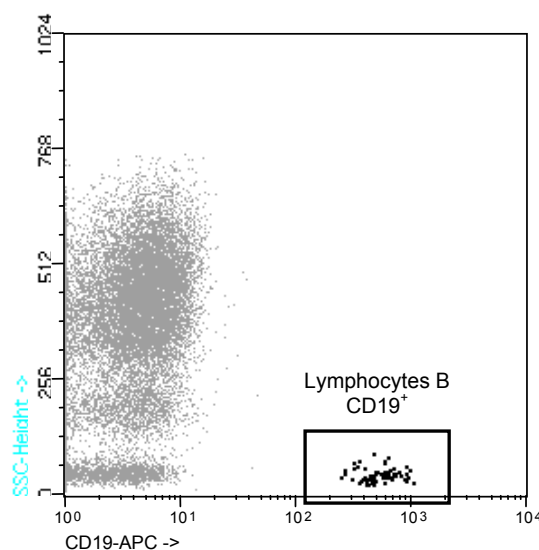
Preparation:

1. Transfer 100 µL of anticoagulated (EDTA) blood to a 12 x 75 mm polystyrene test tube (10⁶ cells).
2. Add 20 µL of CD19 APC and mix gently with a vortex mixer. The 20 µL is a guideline only; the optimal volume should be determined by the individual laboratory.
3. The recommended negative control is a non-reactive APC-conjugated antibody of the same isotype. (**Code No. ISOCONTAPCIGG2a**).
4. Incubate in the dark at room temperature at 4 °C for 30 minutes or at room temperature (20-25 °C) for 15 minutes.
5. Add 1,5 mL of Lysing Solution to each sample and mix gently with a vortex mixer. Incubate for 10 minutes at room temperature in the dark.

6. Centrifuge at 1000 x g for 5 minutes. Gently aspirate the supernatant and discard it leaving approximately 50 μ L of fluid.
7. Add 2 mL 0.01 mol/L PBS (It betters that it containing 2% bovine serum albumin) and resuspend the cells by using a vortex mixer.
8. Centrifuge at 1000 x g for 5 minutes. Gently aspirate the supernatant and discard it leaving approximately 50 μ L of fluid.
9. Resuspend pellet in an appropriate fluid for flow cytometry, e.g. 0.3 mL PBS. The PBS should contain 1% paraformaldehyde (fixative) if samples are not analysed the same day.
10. Analyse on a flow cytometer or store at 2-8 $^{\circ}$ C in the dark until analysis. Samples can be run up to 24 hours after lysis.

FOR MORE INFORMATION, PLEASE VISIT OUR WEBSITE: www.citometriadeflujo.info

Normal Peripheral Blood on a human donor



Cells were analyzed on a FACSCalibur (Becton Dickinson, San Jose, CA) flow cytometer, using Cell Quest acquisition software and PAINT-A-GATE. PRO, analysis software.

References:

1. A. Orfao, J. Almeida, M.L. Sánchez, F.M. Sánchez-Guijo, C. Vallejo, M.C. López-Berges, M.A. García-Marcos, M.J. Moro, J.F. San Miguel. Incidence of aberrant phenotypes in a large series of B-cell chronic lymphoproliferative disorders, implication for minimal residual disease.
2. Sato S, Tedder TF. BC3. CD19 workshop panel report. In: Kishimoto T, Kikutani H, von dem Borne AEG, Goyert SM, Mason DY, Miyasaka M, et al., editors. Leukocyte typing VI. White cell differentiation antigens. Proceedings of the 6th International Workshop and Conference; 1996 Nov 10-14; Kobe, Japan. New York, London: Garland Publishing Inc.; 1997. p. 133-5.
3. Braylan RC, Orfao A, Borowitz MJ, Davis BH. Optimal number of reagents required to evaluate hematolymphoid neoplasias: results of an international consensus meeting. Cytometry 2001;46:23-7.
4. Sato S, Tedder TF. CD19. In: Kishimoto T, Kikutani H, von dem Borne AEG, Goyert SM, Mason DY, Miyasaka M, et al., editors. Leukocyte typing VI. White cell differentiation antigens. Proceedings of the 6th International Workshop and Conference; 1996 Nov 10-14; Kobe, Japan. New York, London: Garland Publishing Inc.; 1997. p. 764-5.
5. Leong AS-Y, Cooper K, Leong FJW-M. Manual of diagnostic antibodies for immunohistology. London: Oxford University Press; 1999. p. 67-8.
6. Pezzutto A, Dörken B, Feller A, Moldenhauer G, Schwartz R, Wernet P, et al. HD37 monoclonal antibody: a useful reagent for further characterization of "non-T, non-B" lymphoid malignancies. In: Reinherz EL, Haynes BF, Nadler LM, Bernstein ID, editors. Leukocyte typing II. Proceedings of the 2nd International Workshop on Human Leukocyte Differentiation Antigens; 1984 Sept 17-20; Boston, USA. New York, Berlin, Heidelberg, Tokyo: Springer-Verlag; 1986. Volume 2. p. 391-402.
7. Nadler LM. B cell/leukemia panel workshop: summary and comments. In: Reinherz EL, Haynes BF, Nadler LM, Bernstein ID, editors. Leukocyte typing II. Proceedings of the 2nd International Workshop on Human Leukocyte Differentiation Antigens; 1984 Sept 17-20; Boston, USA. New York, Berlin, Heidelberg, Tokyo: Springer-Verlag; 1986. Volume 2. p. 3-43.