

**Product:** CD24 APC

**Cat. Ref:** 24A

**Reagent provided:** 100 test (20µl/test)

**Description:** Monoclonal Mouse Anti-Human CD24 APC, is recommended for use in flow cytometry for identification of B Cell subset, monocytes and dendritic cells. The conjugate is provided in liquid form in buffer containing 1% bovine serum albumin (BSA) (Lote: 113K1364 / SIGMA) and 0,09% NaN<sub>3</sub>, pH 7.2.

**Batch Number:**

**Clone:** SN3

**Isotype:** IgG1

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

**Reactivity:** The monoclonal antibody is directed against the CD24- antigen, which is expressed on virtually all B-cells: early B-cell precursors, pre-pre-B-cells, pre-B-cells, B- cells, intermediate B-cells, mature B-cells and some plasmacytoid cells are positive while plasmacells are negative. The monoclonal antibody reacts with human granulocytes and their precursors (from promyelocytic stage). The monoclonal antibody also reacts with virtually all pre-B-cell lines and Burkitt cell lines, but is only expressed on less than 50% of the B-cell lymphoblastoid cell lines. Non T-ALL, B-cell NHL and 50% of myelomas as well as a subpopulation of AML is found to be positive. Hairy Cell Leukaemia is found to be weakly positive.

**Specificity:** The antibody reacts with the CD24 antigen a heavily glycosylated molecule that migrates as a broad band of 35-45 kDa on both reducing and non-reducing SDS gel electrophoresis. CD24 is attached to the cell membrane via a glycosyl phosphatidylinositol (GPI) anchor and is expressed at multiple stages of B cell development, beginning with the bone marrow CD34 positive pro-B cell compartment and continuing through mature surface IgM positive/IgD positive B cells. CD24 is also expressed on the vast majority of B-lineage acute lymphoblastic leukaemias, B cell chronic lymphocytic leukaemias and B cell non-Hodgkin's lymphoma. In the normal spleen, mantle zone lymphocytes are CD24 strongly positive, but germinal center cells are CD24 negative or CD24 weakly positive

**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](mailto: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/10<sup>6</sup> 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 (NaN<sub>3</sub>), 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.

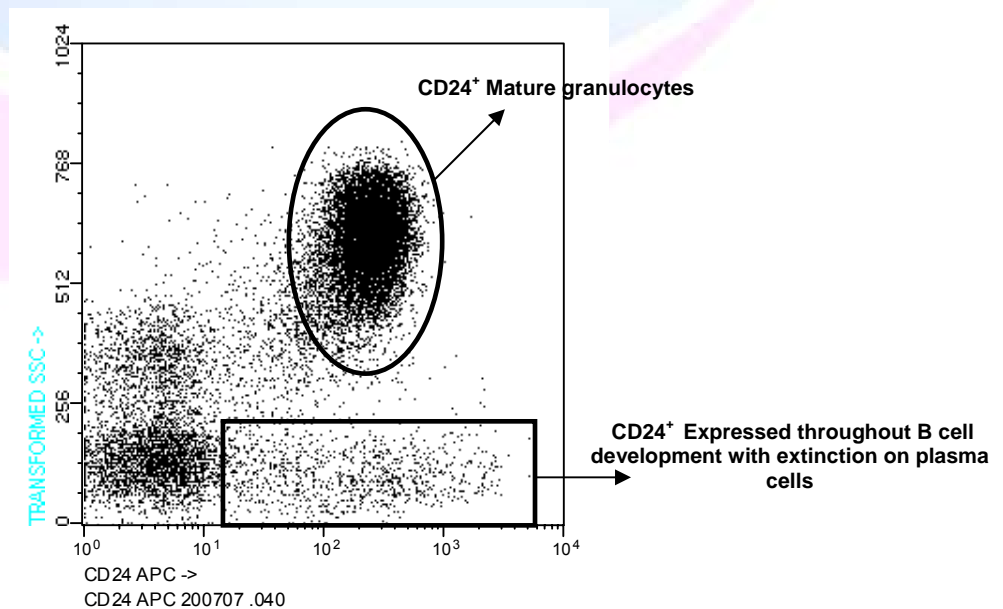
#### Preparation:

1. Transfer 100 µL of anticoagulated (EDTA) blood to a 12 x 75 mm polystyrene test tube (10<sup>6</sup> cells).
2. Add 20 µL of CD24 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. ISOCONTAPCIGG1).**

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 µL 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 µL 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 °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](http://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. Choi YL, Kim SH, Shin YK, Hong YC, Lee SJ, Kang SY, Ahn G. Cytoplasmic CD24 expression in advanced ovarian serous borderline tumors. *Gynecol Oncol.* 2005 May;97(2):379-86.
2. Fiume R, Faenza I, Matteucci A, Astolfi A, Vitale M, Martelli AM, Cocco L. Nuclear PLCbeta 1 affects CD24 expression in murine erythroleukemia cells. *J Biol Chem.* 2005 Apr 22;
3. Abraham BK, Fritz P, McClellan M, Hauptvogel P, Athelougou M, Brauch H. Prevalence of CD44+/CD24-/low cells in breast cancer may not be associated with clinical outcome but may favor distant metastasis. *Clin Cancer Res.* 2005 Feb 1;11(3):1154-9.
4. Kristiansen G, Pilarsky C, Wissmann C, Kaiser S, Bruemendorf T, Roepcke S, Dahl E, Hinzmann B, Specht T, Pervan J, Stephan C, Loening S, Dietel M, Rosenthal A. Expression profiling of microdissected matched prostate cancer samples reveals CD166/MEMD and CD24 as new prognostic markers for patient survival. *J Pathol.* 2005 Feb;205(3):359-76.

**\*Note: For research use only. Not for use in diagnostic procedures.**