DATA SHEET

Product: CD26 APC
Cat. Ref: 26A-100T
Reagent provided: 100 test (20µl / test)
Description: Monoclonal Mouse Anti-Human CD26. 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.
Clone: TP1/19
Isotype: IgG2b
Fluorochrome: Allophycocyanin (Febico, Far East Bio-Tech Co.)

Reactivity: This antibody reacts with the 110kDa T cell activation antigen that has cell surface dipeptidyl peptidase Iv (DPPIV) enzyme activity. The CD26 antigen is a functional collagen receptor as well as a DPPIV ectoenzyme which cleaves amino-terminal dipeptides with either L-proline or L-alanine at the penultimate position.

CD26 (also known as dipeptidyl peptidase IV (DPP IV), adenosine deaminase (ADA) binding protein) is an atypical serine protease belonging to the prolyl oligopeptidase family. It is expressed on lymphocyte cells and is upregulated during T cell activation. CD26 is also expressed on activated B cells and natural killer cells and abundantly on epithelia. CD26 is implicated in a variety of biological functions including T cell activation, cell adhesion with extracellular matrix such as fibronectin or collagens, and in HIV infection.

Specificity: The monoclonal antibody is directed against the CD26- antigen, which is expressed on human activated T- and B- cells. CD26 is required for T cell proliferation. It is expressed on 10-60% of resting T cells in normal peripheral blood. There is a selective decrease of CD4+ CD26+ T cells in HIV-1 infected individuals.

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/10^6 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

Protocol:

1. Transfer 100 µL of anticoagulated (EDTA) blood to a 12 x 75 mm polystyrene test tube (10^6 cells).
2. Add 20 µL of CD26 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. ISOCONTAPCIGG2b).
4. Incubate in the dark at room temperature at 4 °C for 30 minutes or at room temperature (20-25 °C) for 15 minutes.

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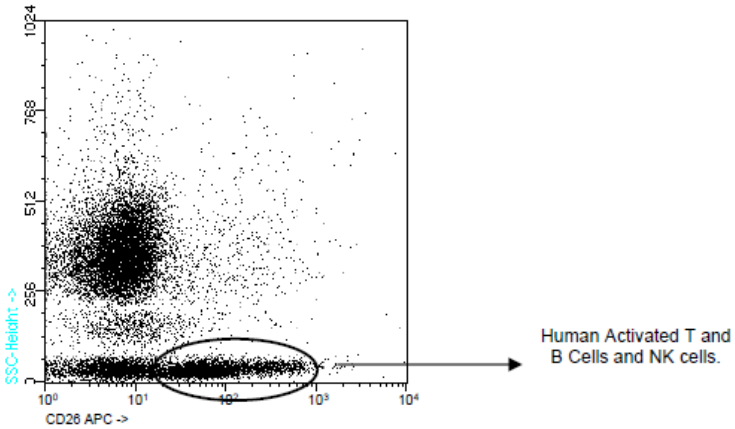
5. Add 100 µL of Lysing Solution to each sample and mix gently with a vortex mixer. Incubate for 10 minutes at room temperature in the dark.
6. Centrifuge at 1000 x g for 5 minutes. Gently aspirate the supernatant and discard it leaving approximately 50 µL of fluid.
7. Add 2 mL 0.01 mol/L PBS (It better 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**

Normal Blood Sample from 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. Stein,H.,R.Schwarting and G.Niedobitek.1989.Cluster report:CD26.In Leucocyte Typing IV:White Cell Differentiation Antigens W.Knapp,B.Dorken,W.R.Gilks,*et al* .,eds. Oxford University Press,New York,p.412.
2. Scholz,W.,R.Mentlein,E.Heymann,*et al* .1985.Interleukin 2 production by human T lymphocytes identified by antibodies to dipeptidyl peptidase IV.*Cell.Immunol* .93:199.
3. Kameoka,J.,T.Tanaka,Y.Nojima,*et al* .1993.Direct association of adenosine deaminase with a T-cell activation antigen,CD26.*Science* 261:466.
4. Dang,N.H.,Y.Torimoto,S.F.Schlossman,*et al* .1990.CD4 helper T-cell activation: functional involvement of two distinct collagen receptors,IF7 and VLA integrin family.*J.Exp.Med* .172:649.
5. Schlossman,S.,L.Boumsell,W.R.Gilks,*et al* .,eds.1995.Leucocyte Typing V:White Cell. Differentiation Antigens,Oxford University Press,New York. 10 0 10 1 10 2 10 3 10 4. Log Fluorescence Intensity Profile of peripheral blood lymphocytes.

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

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