

Anti-Human CD4/CD8/CD3

(33-2A3/HP2-6/D3/9)

			
FITC/PE/PerCP	4F18PE13PP2-I00T	100 test	
FITC/PE/PE-Cyanine5.5	4F18PE13PC2-I00T	100 test	

1. PRODUCT DESCRIPTION

Clones: HP2/6; 143-44; UCHT1
Isotype: IgG2a, IgG1, IgG1
Tested application: flow cytometry
Immunogen: The anti-CD4 monoclonal antibody derives from T cells from leukemic HPB-ALL.
The anti-CD8 monoclonal antibody derives from human T cells. The anti-human CD3 Monoclonal antibody derives from Human infant thymocytes and peripheral blood lymphocytes from a Sezary Syndrome donor.
Species reactivity: Human
Storage instruction: store in the dark at 2-8 °C
Storage buffer: aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN3).
Recommended usage: Immunostep's CD3/CD4/CD8 is a monoclonal antibody combination intended for immunophenotypic identification and enumeration of T-lymphocyte subpopulations in human peripheral blood or other biological samples. This reagent allows the simultaneous detection of total T cells (CD3⁺), helper/inducer T cells (CD4⁺), and cytotoxic/suppressor T cells (CD8⁺) by flow cytometry. The combined analysis of these markers provides valuable information for the assessment and monitoring of immune status in various clinical conditions, including immunodeficiencies, autoimmune diseases, infectious processes, and hematologic disorders. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 106 cells.
Presentation: liquid
Source: Supernatant proceeding from an in vitro cell culture of a cell hybridoma.
Purification: Affinity chromatography.

2. ANTIGEN DETAILS

Large description: The CD3 monoclonal antibody is directed against the CD3 antigen (T3-antigen), a component of the T-cell receptor complex expressed on the surface of human T lymphocytes. This antibody reacts with 80-90% of human peripheral T cells and medullary thymocytes. It does not react with B cells, monocytes, granulocytes, or platelets. The CD3 antigen is involved in signal transduction following antigen recognition and is essential for T-cell activation. The antibody may be mitogenic for resting T lymphocytes and can block the cytolytic activity of cytotoxic T lymphocyte (CTL) clones.

The CD4 monoclonal antibody recognizes the CD4 antigen (T4-antigen), a glycoprotein expressed on approximately 60-65% of human peripheral T lymphocytes and on most thymocytes. CD4 is a co-receptor for the T-cell receptor (TCR) that binds to MHC class II molecules, facilitating T-cell activation. The antibody may show weak reactivity with monocytes and macrophages but does not react with B cells, granulocytes, or platelets. CD4 expression defines the helper/inducer T-cell subset, which plays a central role in immune regulation and coordination.

The CD8 monoclonal antibody is directed against the CD8 antigen (T8-antigen), a cell surface glycoprotein expressed on approximately 25-35% of peripheral T lymphocytes and on a subset of thymocytes. CD8 acts as a co-receptor for the TCR complex in recognition of antigens presented by MHC class I molecules. The antibody does not react with B cells, monocytes, granulocytes, or platelets. CD8 expression defines the cytotoxic/suppressor T-cell subset responsible for direct killing of target cells and immune surveillance.

Together, the CD4/CD8/CD3 combination allows for the immunophenotypic identification and enumeration of total T cells and their major functional subsets (helper/inducer and cytotoxic/suppressor T lymphocytes) by flow cytometry. This combination provides valuable information for the evaluation of immune status in both physiological and pathological conditions, including immunodeficiencies, autoimmune disorders, infections, and hematologic malignancies.

Please, refer to www.immunostep.com technical support for more information.

3. WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties. Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

4. REFERENCES

- Tunnacliffe A, Olsson C, Traunecker A, Krissansen GW, Karjalainen K, de la Hera A. T3.2. The majority of CD3 epitopes are conferred by the epsilon chain. In: Knapp W, Dörken B, Gilks WR, Rieber EP, Schmidt RE, Stein H, et al., editors. Leucocyte typing IV. White cell differentiation antigens. Proceedings of the 4th International Workshop and Conference; 1989 Feb 21-25; Vienna, Austria. Oxford, New York, Tokyo: Oxford University Press; 1989. p. 295-6.
- 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.
- 3Orfao A, Ciudad J, López-Berges MC, López A, Vidriales B, Caballero MD. Acute lymphoblastic leukemia (ALL): detection of minimal residual disease (MRD) at flow cytometry. Leuk Lymph 1994;13:87-90.

5. EXPLANATION OF SYMBOLS

	Form
	Catalog reference
	Contains sufficient for <n> test
	Quantity per test
	Regulatory Status
	Research Use Only
	Manufacturer

6. MANUFACTURED BY:



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