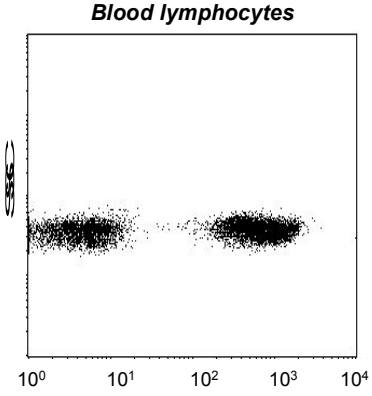
anti-human CD3 APC-conjugated

APC - conjugated monoclonal antibody HIT3b to human CD3

Cat-No: **21810036** 500 µl

Clone: HIT3b

Specificity: The CD3 (HIT3b) antibody recognizes the 17-19 kD ε-chain of CD3 within the CD3 antigen/T cell antigen receptor (TCR) complex. The CD3 antigen is expressed in the cell cytoplasma during the early stage of T cell development and is expressed on the cell membrane at the late stage. CD3 antigen is displayed on 60-80% of normal peripheral blood lymphocytes and 60-70% of thymocytes and plays an important role in signal transduction after antigen recognition by TCR. The clone HIT3a has a strong mitogenic effect at ng level on T lymphocyte pro-liferation in soluble or immobilized conditions and has an immunosuppressive effect at high dose. Conversely, the clone HIT3b has a strong mitogenic effect on T lymphocytes proliferation only under immobilized condition.



Attention! *Cells from one healthy individual are shown. Cell Populations and staining intensity may vary interindividually.*

Isotype subclass: Mouse IgG1

Form: The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The reagent is adjusted for direct use. No reconstitution is necessary.

Physical state: Liquid

Buffer/Additives/Preservative:PBS containing 1% BSA and 0.09% sodium azide (pH 7.2)

Expiration date: The reagent is stable until the expiry date stated on the vial label

Storage conditions: Store at 4 °C. Avoid prolonged exposure to light.

Application: Flow Cytometry

References:
- Schlossman S. et al., eds. 1995. Leucocyte Typing V: White Cell Differentiation Antigens. P246, Oxford University Press, New York.
- Tadamitsu K. et al., eds. 1997. Leucocyte Typing VI: White Cell Differentiation Antigens. P49-52, 113-114 Garland Publishing, Inc., New York.

Background: CD3 complex is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta. These CD3 subunits are structurally related members of the immunoglobulins super family encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation. The CD3 antigen is present on 68-82% of normal peripheral blood lymphocytes, 65-85% of thymocytes and Purkinje cells in the cerebellum. It is never expressed on B or NK cells. Decreased percentages of T lymphocytes may be observed in some autoimmune diseases.

Warning: Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop

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