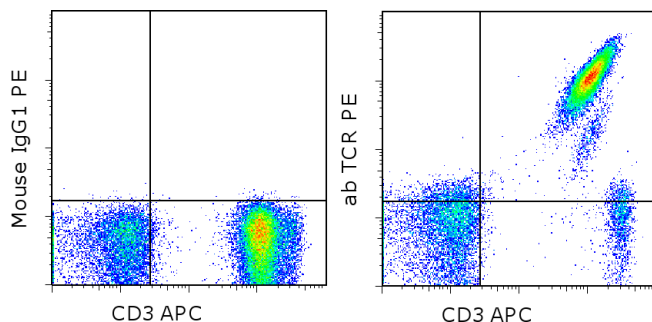


## Anti-Human alpha beta TCR PE

**Catalog Number:** 12-9955

**RUO: For Research Use Only. Not for use in diagnostic procedures.**



Staining of normal human peripheral blood cells with Anti-Human CD3 APC (cat. 17-0036) and Mouse IgG1 kappa Isotype Control PE (cat. 12-4714) (left) or Anti-Human alpha/beta TCR PE (right). Cells in the lymphocyte gate were used for analysis.

### Product Information

**Contents:** Anti-Human alpha beta TCR PE  
**Catalog Number:** 12-9955  
**Clone:** WT31  
**Concentration:** 5  $\mu$ L (0.06  $\mu$ g)/test  
**Host/Isotype:** Mouse IgG1

**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer  
**Temperature Limitation:** Store at 2-8°C. Do not freeze. Light sensitive material.  
**Batch Code:** Refer to vial  
**Use By:** Refer to vial

### Description

This WT31 monoclonal antibody recognizes the human  $\alpha\beta$  T cell receptor (TCR) complexed with the CD3 $\epsilon$  chain. Composed of a 44-kDa  $\alpha$  and a 37-kDa  $\beta$  chain, TCR specificity is typically determined by V $\alpha$ , J $\alpha$ , V $\beta$ , D $\beta$ , and J $\beta$  gene rearrangement. The TCR is often associated with the CD3 complex, which is composed of at least five polypeptides. The TCR/CD3 complex recognizes and binds to major histocompatibility complex-bound antigen presented by antigen presenting cells such as B cells, dendritic cells, and macrophages. These events lead to T cell activation, resulting in cellular signaling and cytokine production.

The WT31 monoclonal antibody has been reported to induce proliferation of resting T cells, as well as inhibit cytotoxic T cell activity. In addition, some antibodies against CD3 partially inhibit CD3; clone SK7 is recommended for use in two-color experiments.

### Applications Reported

This WT31 antibody has been reported for use in flow cytometric analysis.

### Applications Tested

This WT31 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5  $\mu$ L (0.06  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from  $10^5$  to  $10^8$  cells/test.

### References

Salmerón A, Sánchez-Madrid F, Ursa MA, Fresno M, Alarcón B. A conformational epitope expressed upon association of CD3-epsilon with either CD3-delta or CD3-gamma is the main target for recognition by anti-CD3 monoclonal antibodies. J Immunol. 1991 Nov 1;147(9):3047-52. (WT31, FC)

Alarcon B, De Vries J, Pettey C, Boylston A, Yssel H, Terhorst C, Spits H. The T-cell receptor gamma chain-CD3 complex: implication in the cytotoxic activity of a CD3+ CD4- CD8- human natural killer clone. Proc Natl Acad Sci U S A. 1987 Jun;84(11):3861-5. (WT31, FC)

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**Catalog Number:** 12-9955

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Spits H, Borst J, Tax W, Capel PJ, Terhorst C, de Vries JE. Characteristics of a monoclonal antibody (WT-31) that recognizes a common epitope on the human T cell receptor for antigen. J Immunol. 1985 Sep;135(3):1922-8. (**WT31**, FC)

### Related Products

12-4714 Mouse IgG1 K Isotype Control PE (P3.6.2.8.1)

17-0036 Anti-Human CD3 APC (SK7)