

TECHNICAL DATA SHEET

violetFluor™ 500 Anti-Human CD3 (UCHT1)

Catalog Number: 85-0038

PRODUCT INFORMATION

Contents: violetFluor™ 500 Anti-Human CD3 (UCHT1)

Isotype: Mouse IgG1, kappa

Concentration: 5 uL (0.5 ug)/test

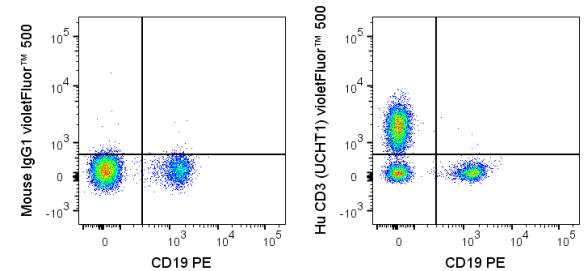
Clone: UCHT1

Reactivity: Human

Use By: 12 months from date of receipt

Storage Conditions: 2-8°C protected from light

Formulation: 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% NaN₃, 0.1% gelatin, pH7.2



Human peripheral blood lymphocytes were stained with PE Anti-Human CD19 (50-0199) and 5 uL (0.5 ug) violetFluor™ 500 Anti-Human CD3 (85-0038) (right panel) or 0.5 ug violetFluor™ 500 Mouse IgG1 isotype control (left panel).

DESCRIPTION

The UCHT1 antibody is specific for human CD3e, also known as CD3 epsilon, a 20 kDa subunit of the T cell receptor complex. Together with CD3 gamma, CD3 delta and CD3 zeta, CD3 epsilon assembles to form the CD3 complex that associates with the T cell receptor (TCR). Along with co-receptors CD4 or CD8, the complex serves to recognize antigens bound to MHC molecules on antigen-presenting cells. These interactions promote T cell receptor signaling (T cell activation), inducing cell proliferation, differentiation, production of cytokines or activation-induced cell death. CD3 is differentially expressed during thymocyte development and on all mature T cells. The UCHT1 antibody is a widely used phenotypic marker for human T cells. In addition, binding/cross-linking of UCHT1 antibody to CD3e can induce cell activation (use format suitable for functional assays).

PREPARATION & STORAGE

This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation. It is recommended to store the product undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.

APPLICATION NOTES

This antibody preparation has been pre-titrated and quality-tested for flow cytometry using an appropriate cell type. The antibody has been diluted for use at 5 uL per test, defined as the amount of antibody that will stain a cell sample in a final volume of approximately 100 uL. The number of cells within a sample should be determined empirically, but typically ranges between 1x10e5 to 1x10e8 cells.

violetFluor™ 500 dye is excited by the violet (405 nm) laser and has a peak emission of 500 nm. The recommended band pass filter for this dye is 525/20. violetFluor™ 500 can be used as an alternative for BD Horizon™ V500 or Pacific Orange®.

REFERENCES

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Tonbo Biosciences tests all antibodies by flow cytometry. Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

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