

Brilliant Violet 510™ anti-human TCR Vα7.2

Catalog # / Size: 2358585 / 25 tests

Clone: 3C10

Isotype: Mouse IgG1, κ

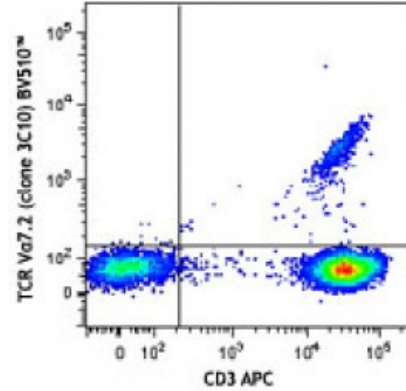
Immunogen: Recombinant TCR

Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 510™ and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

Concentration: Lot-specific

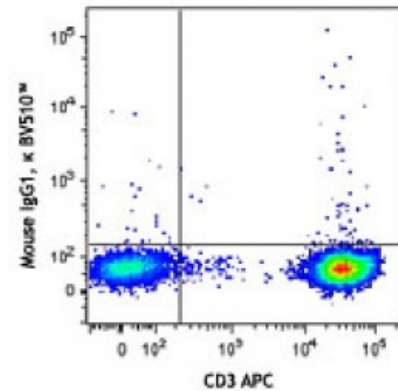


Human peripheral blood lymphocytes were stained with CD3 APC and TCR Vα7.2 (clone 3C10) Brilliant Violet 510™ (top) or mouse IgG1, κ Brilliant Violet 510™ isotype control (bottom).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.



Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 510™ is a trademark of Sirigen Group Ltd.

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purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.

Application Notes: Associated with an anti-CD161 or -IL18R α staining, the 3C10 antibody allows unequivocal identification of MAIT cells. Importantly, the V α 7.2 segment can also be used by conventional T cells. Therefore, the 3C10 also stains a subset of conventional CD4 and CD8 T cells.

Application References: 1. Martin E, *et al.* 2009. *PLoS Biol.* 7:525.
2. Wakao H, *et al.* 2013. *Cell Stem Cell* 12:1. [PubMed](#)

Description: The 3C10 antibody recognizes the V α 7.2 T cell antigen receptor (TCR) α -chain segment which, joined with the J α 33 segment, constitutes an invariant TCR that is a characteristic of the mucosal-associated invariant T cells (MAIT cells). MAIT cells are restricted by a nonpolymorphic class Ib major histocompatibility complex (MHC) molecule, MHC-related molecule 1 (MR1). MAIT cells are present in human blood (1-8% of T cells), mesenteric lymph nodes, liver, and intestinal mucosa. MAIT cells play a role in detecting and fighting off microbial infections.

Antigen References: 1. Le Bourhis L, *et al.* 2010. *Nat. Immunol.* 11:701.