# Anti-Mouse TCR Beta Antibody, Clone H57-597, APC

Hamster (Armenian) monoclonal antibody against mouse T cell receptor beta, APC-conjugated

**Catalog** #100-1611                100 µg                0.2 mg/mL

## Product Description

This monoclonal antibody reacts with the beta chain of mouse T cell receptor (TCR). TCR beta is a member of the immunoglobulin superfamily and together with the TCR alpha chain form the alpha-beta TCR. TCR beta is expressed by thymocytes in a developmentally regulated manner and by majority of peripheral T cells. Small number of T cells express an alternative heteromer of gamma and delta protein chains, known as the gamma-delta TCR. TCR-CD3 complex in conjunction with co-receptors CD4 or CD8 enable the recognition and response to antigens attached to major histocompatibility complex (MHC) molecules on antigen-presenting cells. Crosslinking of the TCR complex with H57-597 induces activation and proliferation of T cells or apoptosis, based on assay conditions. The H57-597 antibody clone has been widely used as a phenotypic indicator for T cells expressing alpha-beta TCR. This antibody does not cross-react with cells expressing the gamma-delta TCR.

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| **Target Antigen**: | TCR beta |
| **Alternative Names**: | Tcrb, TCR-b chain, TCR beta, Tib |
| **Gene ID**: | 21577 |
| **Species Reactivity**: | Mouse |
| **Host Species**: | Hamster |
| **Clonality**: | Monoclonal |
| **Clone**: | H57-597 |
| **Isotype**: | Armenian hamster IgG |
| **Immunogen**: | Affinity-purified TCR from mouse T cell hybridoma DO-11.10 |
| **Conjugate**: | APC (Allophycocyanin) |

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## Applications

**Verified Applications**:                          FC

**Reported Applications**:                          FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; FCXM: Flow cytometric crossmatch assay; FISH: Fluorescence in situ hybridization; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-F: Immunohistochemistry (frozen-tissue); IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; NMR: Nuclear magnetic resonance spectroscopy; RIA: Radioimmunoassay; WB: Western blotting

## Properties

**Product Formulation:**          Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin

**Purification:**          The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC.

**Stability and Storage:**          Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.

**Directions for Use**:          For flow cytometry, the suggested use of this antibody is ≤ 1 µg per 1 x 10^6 cells in 100 µL. It is recommended that the antibody be titrated for optimal performance for each application.

## Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

## References

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