Technical Data Sheet

# PerCP-Cy™5.5 Hamster Anti-Mouse TCR β Chain

## Product Information

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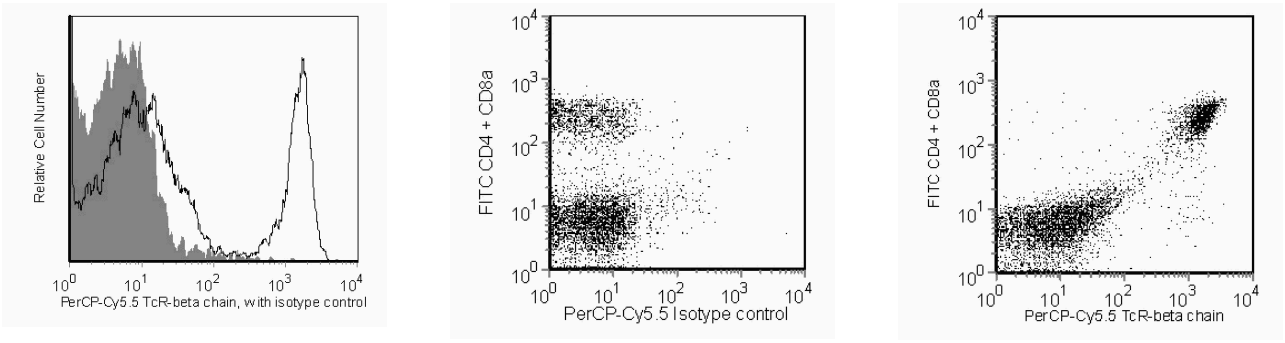
| **Material Number:** | **560657** |
| **Size:** | 50 µg |
| **Concentration:** | 0.2 mg/ml |
| **Clone:** | H57-597 |
| **Immunogen:** | TCR affinity-purified from mouse T-cell hybridoma DO-11.10 |
| **Isotype:** | Armenian Hamster IgG2, λ1 |
| **Reactivity:** | QC Testing: Mouse |
| **Storage Buffer:** | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

The H57-597 antibody reacts with a common epitope of the β chain of the T-cell Receptor (TCR) complex on αβ TCR-expressing thymocytes and peripheral T lymphocytes and NK1.1+ thymocytes and NK-T cells of all mouse strains tested. It does not react with γδ TCR-bearing T cells. In the fetal and adult thymus, the TCR β-chain may form homodimers or pair with the pre-TCR α-chain on the surface of immature thymocytes before expression of the TCR α-chain. Plate-bound or soluble H57-597 antibody activates αβ TCR-bearing T cells, and plate-bound mAb can induce apoptotic death.




***Flow cytometric analysis of the T-cell receptor (TcR) β-chain on mouse splenocytes. Left Panel:*** *Splenocytes from C57BL/6 mice were stained with either a PerCP-Cy™5.5 Hamster IgG2, λ1 isotype control (shaded) (Cat. No. 550762) or with the PerCP-Cy™5.5 Hamster Anti-Mouse TcR β-chain antibody (unshaded).* ***Middle and Right Panels:*** *Splenocytes from C57BL/6 mice were stained with both a FITC Rat Anti-Mouse CD4 antibody (Cat.No. 553047) and a FITC Rat Anti-Mouse CD8a antibody (Cat.No. 553031) in conjunction with either a PerCP-Cy™5.5 Hamster IgG2, λ1 isotype control (middle panel) or the PerCP-Cy™5.5 Hamster Anti-Mouse TcR β-chain antibody (right panel). Histograms and dot plots were derived from gated events based on light scattering characteristics for splenocytes. Flow cytometry was performed on a BD™ LSR II flow cytometry system.*

## Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity.

## Application Notes

**Application**

| | |
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| Flow cytometry | Routinely Tested |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 553047 | FITC Rat Anti-Mouse CD4 | 0.5 mg | RM4-5 |
| 553031 | FITC Rat Anti-Mouse CD8a | 0.5 mg | 53-6.7 |

## Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.

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4. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
5. This product is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one return this material, unopened to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121 and any money paid for the material will be refunded.
6. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
7. PerCP-Cy5.5–labelled antibodies can be used with FITC- and R-PE–labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
8. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
9. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
10. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

## References


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