

# TCR beta Monoclonal Antibody (H57-597), Super Bright™ 780, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Host/Isotype	Armenian hamster / IgG
Recommended Isotype Control	Armenian Hamster IgG Isotype Control (eBio299Arm), Super Bright™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	H57-597
Conjugate	Super Bright™ 780
Excitation/Emission Max	413/780 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2802480

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1.0 µg/test	5 Publications

## Product Specific Information

**Description:** The H57-597 monoclonal antibody reacts with the beta chain of mouse TCR. TCR beta is expressed by thymocytes in a developmentally regulated manner and a majority of peripheral T cells. Crosslinking of the TCR complex with H57-597 induces activation and proliferation of T cells or apoptosis based on assay conditions. H57-597 is used as a phenotypic marker for TCR beta expressing T cells.

**Applications Reported:** This H57-597 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This H57-597 antibody has been tested by flow cytometric analysis of mouse splenocytes. This may be used at less than or equal to 1.0 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 780 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 780 nm. We recommend using a 780/60 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

In some experiments, we have observed that compensation values for Super Bright 780-conjugated antibodies are higher in the violet 450/50 channel when using UltraComp eBeads microspheres ((Product # 01-2222-42)) as compared to single-color stained cells. In such circumstances, we would recommend setting compensation with cells. We have also observed this in some experiments using AbC Total Antibody Compensation beads ((Product # A10497)).

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright

Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

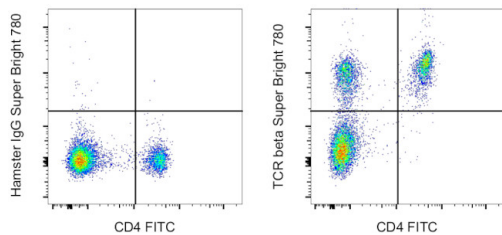
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 405 nm; Emission: 780 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For TCR beta Monoclonal Antibody (H57-597), Super Bright™ 780, eBioscience™



### TCR beta Antibody (78-5961-80) in Flow

C57BL/6 mouse splenocytes were stained with CD4 Monoclonal Antibody, FITC (Product # 11-0042-82) and 0.5  $\mu$ g of Armenian Hamster IgG Isotype Control, Super Bright 780 (Product # 78-4888-82) (left) or 0.5  $\mu$ g of TCR beta Monoclonal Antibody, Super Bright 780 (right). Total viable cells were used for analysis, as determined by 7-AAD (Product # 00-6993-50).

[View more figures on thermofisher.com](#)

## 5 References

### Flow Cytometry (5)

The Journal of experimental medicine

#### Niche-specific MHC II and PD-L1 regulate CD4+CD8+ intraepithelial lymphocyte differentiation.

"Published figure using TCR beta monoclonal antibody (Product # 78-5961-82) in Flow Cytometry"

Authors: Moon S, Park Y, Hyeon S, Kim YM, Kim JH, Kim H, Park S, Lee KJ, Koo BK, Ha SJ, Lee SW

Year  
2021

Nature communications

#### B7-CD28 co-stimulation modulates central tolerance via thymic clonal deletion and Treg generation through distinct mechanisms.

"Published figure using TCR beta monoclonal antibody (Product # 78-5961-82) in Flow Cytometry"

Authors: Watanabe M, Lu Y, Breen M, Hodes RJ

Year  
2020

[View more Flow references on thermofisher.com](#)

## More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.