

# CD157 Monoclonal Antibody (eBioSY11B5 (SY11B5)), Super Bright™ 600, eBioscience™

Product Details	
Size	25 Tests
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioSY11B5 (SY11B5)
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 nm
Form	Liquid
Concentration	5 µL/Test
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2762549

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	1 Publication

## Product Specific Information

**Description:** The eBioSY11B5 monoclonal antibody recognizes human CD157 (Mo5, BST-1). CD157 is a 42-45 kDa, GPI-anchored protein with structural and functional similarities with CD38. CD157 was initially cloned because of its expression on monocytes and macrophages, and was subsequently discovered to be the same protein named BST-1, discovered for its expression on bone marrow stromal cells and its ability to stimulate the proliferation of a mouse pre-B cell line. CD157 is a pleiotropic ectoenzyme and is thought to act independently as an enzyme and receptor. Similar to CD38, CD157 is involved in the metabolism of NAD<sup>+</sup> and this activity may be involved in regulating intracellular Ca<sup>2+</sup> levels. As a receptor, upon binding of its putative ligand, CD157 is thought to initiate a signal transduction cascade resulting in the phosphorylation of cytoplasmic proteins including focal adhesion kinase (FAK). The mechanism and functional significance of CD157-initiated signal transduction remain to be fully characterized.

**Applications Reported:** This eBioSY11B5 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This eBioSY11B5 antibody has been pre-diluted and tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at 5 µL (0.25 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.

Super Bright 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend using a 610/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

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) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) 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: 600 nm; Laser: Violet Laser

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

1 Reference

Flow Cytometry (1)

mBio	Year 2019
<b>CD157 Confers Host Resistance to Mycobacterium tuberculosis via TLR2-CD157-PKCzeta-Induced Reactive Oxygen Species Production.</b>	
"Published figure using CD157 monoclonal antibody (Product # 63-1579-42) in Flow Cytometry"	
Authors: Yang Q,Liao M,Wang W,Zhang M,Chen Q,Guo J,Peng B,Huang J,Liu H,Yahagi A,Xu X,Ishihara K,Cooper A,Chen X,Cai Y	

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