

Technical Data Sheet

BV605 Mouse Anti-Human CD157

Product Information

Material Number:	742591
Size:	50 µg
Clone:	SY/11B5
Alternative Name:	BST1; Bone marrow stromal antigen 1; ADP-ribosyl cyclase 2; cADPr hydrolase
Reactivity:	Tested in Development:Human
Isotype:	Mouse BALB/c IgG1, κ
Application:	Flow cytometry(Qualified)
Concentration:	0.2 mg/ml
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.
Regulatory Status:	RUO

Description

The SY/11B5 monoclonal antibody specifically binds to CD157 which is also known as BST-1 (Bone marrow stromal antigen 1), BP-3/IF-7, Mo5, ADP-ribosyl cyclase 2, and cADPr hydrolase 2. CD157 is a 40-46 kDa glycoposphatidylinositol-linked cell membrane glycoprotein. It is an ectoenzyme that has both cyclic ADP-ribose hydrolase and ADP-ribosyl cyclase activities. CD157 is expressed as a homodimer by a variety of cell types including bone marrow stromal cells, granulocytes, monocytes, macrophages, dendritic cells, endothelial cells, and B and T cell progenitors. In addition to its ectoenzyme activities, CD157 reportedly functions as a receptor involved in neutrophil and monocyte adhesion, transendothelial migration and diapedesis and in tumor cell migration.

This antibody is conjugated to BD Horizon™ BV605 which is part of the BD Horizon Brilliant™ Violet family of dyes. With an Ex Max of 407-nm and Em Max of 602-nm, BD Horizon BV605 can be excited by a violet laser and detected with a standard 610/20-nm filter set. BD Horizon BV605 is a tandem fluorochrome of BD Horizon BV421 and an acceptor dye with an Em max at 605-nm. Due to the excitation of the acceptor dye by the green (532 nm) and yellow-green (561 nm) lasers, there will be significant spillover into the PE and BD Horizon PE-CF594 detectors off the green or yellow-green lasers. BD Horizon BV605 conjugates are very bright, often exhibiting brightness equivalent to PE conjugates and can be used as a third color off of the violet laser.

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 BD Horizon BV605 under optimal conditions that minimize unconjugated dye and antibody.

Recommended Assay Procedure

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794).

Suggested Companion Products

Catalog Number	Name	Size
564219	Human BD Fc Block™	50 µg
554656	Stain Buffer (FBS)	500 mL
554657	Stain Buffer (BSA)	500 mL
563794	Brilliant Stain Buffer	100 Tests
555899	Lysing Buffer	100 mL
349202	Lysing Solution 10X Concentrate	100 mL

Product Notices

1. This antibody was developed for use in flow cytometry.
2. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
3. Researchers should determine the optimal concentration of this reagent for their individual applications.
4. An isotype control should be used at the same concentration as the antibody of interest.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.
8. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
9. BD Horizon Brilliant Violet 605 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,455,613; 8,575,303; 8,354,239.

References

Ortolan E, Vacca P, Capobianco A, et al. CD157, the Janus of CD38 but with a unique personality. *Cell Biochem Funct.* 2002; 20(4):309-322. (Biology).

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