Technical Data Sheet

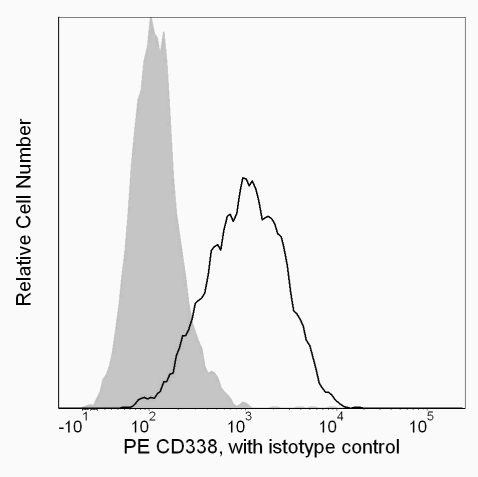
PE Mouse anti-Human CD338

Product Information

Material Number:	**561180**
Alternate Name:	ABCG2; ABCP; BCRP; BMDP; MXR1; ABC15; BCRP1; CDw338; EST157481; MGC1(
Size:	100 tests
Vol. per Test:	5 µl
Clone:	5D3
Immunogen:	Human ABCG2-transfected Mouse cells
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 5D3 monoclonal antibody specifically binds to an epitope of ABCG2 (BCRP1), a multi-drug resistance protein that is a member of ATP binding cassette (ABC) transporters. It is highly expressed on primitive stem cells as identified by the "side-population" (SP) phenotype. This SP phenotype is based on the efflux of fluorescent dyes such as Rhodamine 123 and Hoechst 33342. The expression of ABCG2 appears to be highly conserved as it has been identified in various species. Studies show that highly purified murine stem cells express BCRP1 mRNA and this expression declines sharply as the stem cells express CD34. The highest levels of BCRP1 mRNA expression have been seen in KDR+ human stem cells. ABCG2/BCRP1 was clustered as CD338 in the HLDA8 workshop.



Analysis of CD338 on human placenta epithelial choriocarcionma. *JEG-3 cells (ATCC Cat. No. HTB-36) were stained with PE mouse anti-human CD338 (open histogram) or PE Mouse IgG2b, κ Isotype Control at a matching concentration (filled histogram, Cat. No. 555058). Flow cytometry was performed on a BD™ LSR II flow cytometry system.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
555058	PE Mouse IgG2b, κ Isotype Control	0.1 mg	27-35
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.268.5430	32.53.720.550	0120.8555.90	65.6861.0633	0800.771.7157

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

2. An isotype control should be used at the same concentration as the antibody of interest.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. 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.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Bunting KD. ABC transporters as phenotypic markers and functional regulators of stem cells. *Stem Cells.* 2002; 20(1):11-20. (Biology)

Ozvegy-Laczka C, Laczkó R, Hegedus, et al. Interaction with the 5D3 Monoclonal Antibody Is Regulated by Intramolecular Rearrangements but Not by Covalent Dimer Formation of the Human ABCG2 Multidrug. *J Biol Chem.* 2008; 283(38):26059-26070. (Clone-specific: Flow cytometry)

Zhou S, Schuetz JD, Bunting KD, et al. The ABC transporter Bcrp1/ABCG2 is expressed in a wide variety of stem cells and is a molecular determinant of the side-population phenotype. *Nat Med.* 2001; 7(9):1028-1034. (Clone-specific: Flow cytometry)

Zola H, Swart B, Nicholson I, et al. CD molecules 2005: human cell differentiation molecules. *Blood.* 2005; 106(9):3123-3126. (Clone-specific)