

Technical Data Sheet

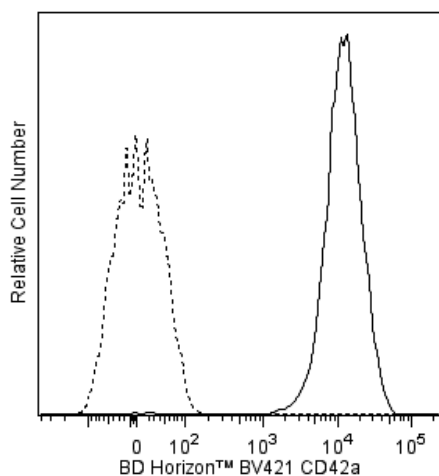
BV421 Mouse Anti-Human CD42a**Product Information**

Material Number:	565444
Alternate Name:	GPIX; Glycoprotein IX; GP9; Glycoprotein 9
Size:	50 Tests
Vol. per Test:	5 µl
Clone:	ALMA.16
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VI P-34
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The ALMA.16 monoclonal antibody specifically recognizes CD42a. CD42a is a 17-22 kDa type I transmembrane glycoprotein that is also known as Platelet glycoprotein IX (GPIX), or Glycoprotein 9 (GP9). CD42a forms a noncovalently linked complex (GPIb/GPIX/GPV) with CD42b, CD42c and CD42d that may serve as a receptor for von Willebrand factor. It is expressed on platelets and megakaryocytes and is absent on the platelets of patients with Bernard-Soulier Syndrome (BSS). Although the CD42a function is not fully understood, GPIX glycoprotein is important for the assembly and membrane expression of the CD42 complex and for the maintenance of the functional conformation of CD42b (GPIb).

The antibody was conjugated to BD Horizon BV421 which is part of the BD Horizon Brilliant™ Violet family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue conjugates.



Flow cytometric analysis of CD42a expression on human peripheral blood platelets. Resting platelets were stained with either BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; dashed line histogram) or BD Horizon BV421 Mouse Anti-Human CD42a antibody (Cat. No. 565444; solid line histogram). The fluorescence histogram showing CD42a expression (or Ig Isotype control staining) was derived from gated events with the forward and side light-scatter characteristics of platelets. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer 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 BD Horizon™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon BV421 were removed.

Application Notes**Application**

Flow cytometry

Routinely Tested

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565444 Rev. 2



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. 563794/566349) or the BD Horizon Brilliant Stain Buffer Plus (Cat. No. 566385).

Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
563794	Brilliant Stain Buffer	100 Tests	(none)
562438	BV421 Mouse IgG1, k Isotype Control	50 µg	X40
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
566349	Brilliant Stain Buffer	1000 Tests	(none)
566385	Brilliant Stain Buffer Plus	1000 Tests	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. BD Horizon Brilliant Violet 421 is covered by one or more of the following US patents: 8,158,444; 8,362,193; 8,575,303; 8,354,239.
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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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