Technical Data Sheet

BV510 Mouse Anti-Human CD61

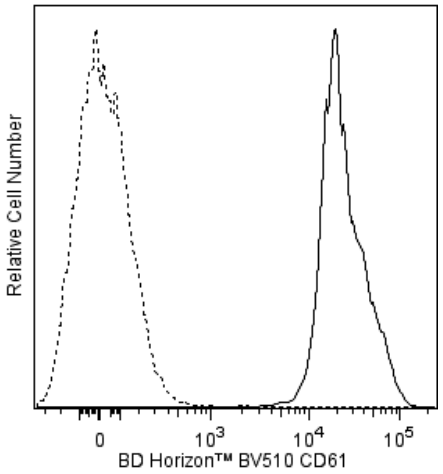
Product Information

Material Number:	**563303**
Alternate Name:	Integrin β3; Integrin beta-3; GP3A; GPIIIa; ITGB3; ITB3
Size:	100 Tests
Vol. per Test:	5 µl
Clone:	VI-PL2 (also known as VIPL2)
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human Tested in Development: Rhesus, Cynomolgus, Baboon, Dog, Cow
Workshop:	III 866; IV P83; V T-124
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The VI-PL2 monoclonal antibody specifically binds to CD61. CD61 is a 105 kDa transmembrane glycoprotein that is also known as integrin β3 and platelet glycoprotein IIIa (GPIIIa or GP3A). It is expressed on platelets, megakaryocytes, osteoclasts and endothelia. Integrin β3 associates with gpIIa (CD41) to form the CD41/CD61 complex which mediates platelet adhesion and aggregation. CD61 also associates with CD51 to form the CD51/CD61 complex (vitronectin receptor). CD61 appears to bind to fibrinogen, fibronectin, vWF, vitronectin, and thrombospondin to mediate cell adhesion.

The antibody was conjugated to BD Horizon™ BV510 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 405-nm and Em Max at 510-nm, BD Horizon™ BV510 can be excited by the violet laser and detected in the BD Horizon™ V500 (525/50-nm) filter set. BD Horizon™ BV510 conjugates are useful for the detection of dim markers off the violet laser.



Flow cytometric analysis of CD61 expression on human peripheral blood platelets. *Platelets were isolated from fresh human whole blood and fixed with BD Cytofix™ Fixation Buffer (Cat. No. 554655). After washing, the fixed platelets were stained with either BD Horizon™ BV510 Mouse IgG1, κ Isotype Control (Cat. No. 562946; dashed line histogram) or BD Horizon™ BV510 Mouse Anti-Human CD61 antibody (Cat. No. 563303; solid line histogram). The fluorescence histograms were derived from 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™ BV510 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV510 were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

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).

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
562946	BV510 Mouse IgG1, k Isotype Control	50 µg	X40
554655	Fixation Buffer	100 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
563794	Brilliant Stain Buffer	100 Tests	(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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
7. BD Horizon Brilliant Violet 510 is covered by one or more of the following US patents: 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

Kishimoto T. Tadamitsu Kishimoto .. et al., ed. *Leucocyte typing VI : white cell differentiation antigens : proceedings of the sixth international workshop and conference held in Kobe, Japan, 10-14 November 1996.* New York: Garland Pub.; 1997(Clone-specific: Flow cytometry)

Mason D. David Mason .. et al., ed. *Leucocyte typing VII : white cell differentiation antigens : proceedings of the Seventh International Workshop and Conference held in Harrogate, United Kingdom.* Oxford: Oxford University Press; 2002(Biology)

Schlossman SF. Stuart F. Schlossman .. et al., ed. *Leucocyte typing V : white cell differentiation antigens : proceedings of the fifth international workshop and conference held in Boston, USA, 3-7 November, 1993.* Oxford: Oxford University Press; 1995(Biology)