

## Technical Data Sheet

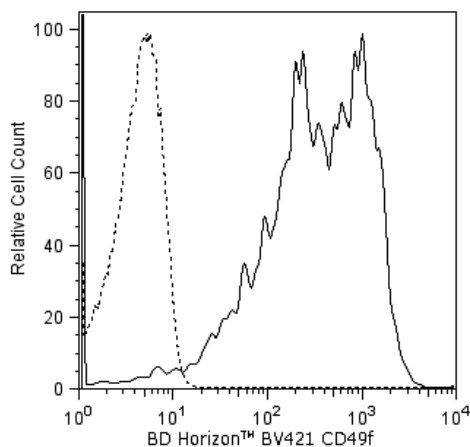
**BV421 Rat Anti-Human CD49f****Product Information**

<b>Material Number:</b>	<b>562582</b>
<b>Alternate Name:</b>	ITGA6; Integrin alpha-6; Integrin α6 chain; VLA-6; ITA6
<b>Size:</b>	100 tests
<b>Vol. per Test:</b>	5 µl
<b>Clone:</b>	GoH3
<b>Immunogen:</b>	Mouse mammary tumor cells
<b>Isotype:</b>	Rat (SD) IgG2a, κ
<b>Reactivity:</b>	QC Testing: Human
<b>Workshop:</b>	IV P55
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

The GoH3 monoclonal antibody specifically binds to CD49f or integrin α6 chain, a 150 kDa transmembrane protein, member of extracellular matrix and cell adhesion receptor family. α6 associates with integrin β1 chain (CD29) to form VLA-6 and with integrin β4 chain (CD104) to form the α6 β4 complex, also known as the laminin and kalinin receptor. CD49f is expressed mainly on T cells, monocytes, platelets, epithelial and endothelial cells, perineural cells and trophoblasts of placenta. GoH3 recognizes an extracellular epitope of integrin α6 on human, mouse and bovine cells. GoH3 has been reported to block the binding of integrin α6 to laminin P1 and E8 fragments.

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 CD49f expression on human peripheral blood lymphocytes.** Whole blood was stained with BD Horizon™ BV421 Rat Anti-Human CD49f antibody (Cat. No. 562582/ 562598; solid line histogram), or with a BD Horizon™ BV421 Rat IgG2a, κ Isotype Control (Cat. No. 562602; dashed line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry 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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## Suggested Companion Products

Catalog Number	Name	Size	Clone
562598	BV421 Rat Anti-Human CD49f	25 tests	GoH3
562602	BV421 Rat IgG2a, $\kappa$ Isotype Control	50 $\mu$ g	R35-95
555899	Lysing Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100- $\mu$ l experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to [www.bdbiosciences.com/pharming/protocols](http://www.bdbiosciences.com/pharming/protocols) for technical protocols.
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](http://www.bdbiosciences.com/colors).
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
8. Brilliant Violet™ 421 is a trademark of Sirigen.

## References

Aumailley M, Timpl R, Sonnenberg A. Antibody to integrin alpha 6 subunit specifically inhibits cell-binding to laminin fragment 8. *Exp Cell Res*. 1990; 188(1):55-60. (Biology)

Knapp W, Dörken B, Gilks WR, et al, ed. *Leucocyte Typing IV*. New York, NY: Oxford University Press; 1989:1-1182. (Biology)

Sonnenberg A, Daams H, Van der Valk MA, Hilkens J, Hilgers J. Development of mouse mammary gland: identification of stages in differentiation of luminal and myoepithelial cells using monoclonal antibodies and polyvalent antiserum against keratin. *J Histochem Cytochem*. 1986; 34(8):1037-1046. (Immunogen: Immunohistochemistry, Radioimmunoassay)

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