

## Technical Data Sheet

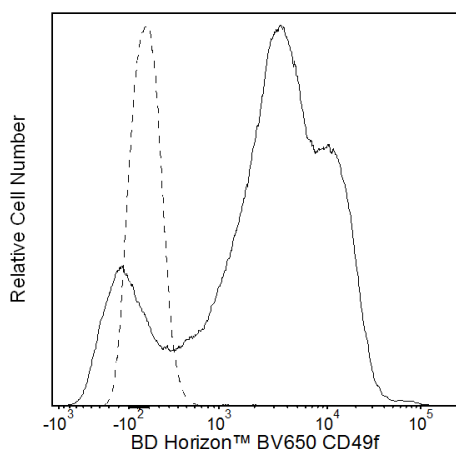
**BV650 Rat Anti-Human CD49f****Product Information**

<b>Material Number:</b>	<b>563706</b>
<b>Alternate Name:</b>	ITGA6; Integrin alpha-6; Integrin $\alpha 6$ chain; VLA-6; ITA6
<b>Size:</b>	25 tests
<b>Vol. per Test:</b>	5 $\mu$ l
<b>Clone:</b>	GoH3
<b>Immunogen:</b>	Mouse mammary tumor cells
<b>Isotype:</b>	Rat (SD) IgG2a, $\kappa$
<b>Reactivity:</b>	QC Testing: Human Tested in Development: Mouse, Pig, Dog
<b>Workshop:</b>	IV P55
<b>Storage Buffer:</b>	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.

**Description**

The GoH3 monoclonal antibody specifically binds to CD49f or integrin  $\alpha 6$  chain, a 150 kDa transmembrane protein, member of extracellular matrix and cell adhesion receptor family.  $\alpha 6$  associates with integrin  $\beta 1$  chain (CD29) to form VLA-6 and with integrin  $\beta 4$  chain (CD104) to form the  $\alpha 6 \beta 4$  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  $\alpha 6$  on human, mouse and bovine cells. GoH3 has been reported to block the binding of integrin  $\alpha 6$  to laminin P1 and E8 fragments.

The antibody was conjugated to BD Horizon™ BV650 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. This dye is a tandem fluorochrome of BD Horizon™ BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 650-nm. BD Horizon™ BV650 can be excited by the violet laser and detected in a filter used to detect APC-like dyes (eg, 660/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there will be spillover into the APC and Alexa Fluor® 700 detectors. However, the spillover can be corrected through compensation as with any other dye combination.



**Flow cytometric analysis of CD49f expression on human peripheral blood lymphocytes.** Whole blood was stained with either BD Horizon™ BV650 Rat Anti-Human CD49f antibody (Cat. No. 563706/563707; solid line histogram), or BD Horizon™ BV650 Rat IgG2a,  $\kappa$  Isotype Control (Cat. No. 563236; dashed line histogram). Erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact 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™ BV650 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV650 were removed.

**Application Notes****Application**

Flow cytometry	Routinely Tested
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## Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
563236	BV650 Rat IgG2a, $\kappa$ Isotype Control	50 $\mu$ g	R35-95
349202	BD FACS™ Lysing Solution	100 ml	(none)
555899	Lysing Buffer	100 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. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
6. Brilliant Violet™ 650 is a trademark of Sirigen.
7. 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).
8. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.

## 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. (Clone-specific: Flow cytometry, Immunoprecipitation)

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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