Technical Data Sheet

PE-CF594 Rat Anti-Human CD49f

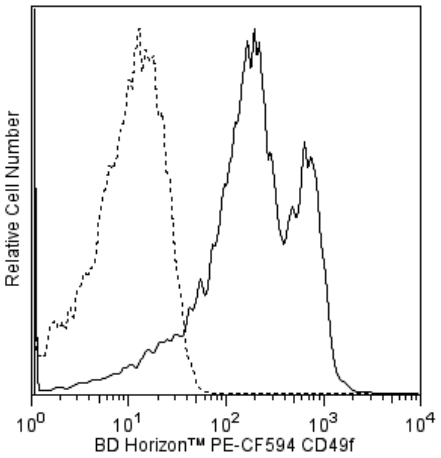
Product Information

Material Number:	**562493**
Alternate Name:	Integrin α6 chain
Size:	25 tests
Vol. per Test:	5 µl
Clone:	GoH3
Immunogen:	Mouse mammary tumor cells
Isotype:	Rat (SD) IgG2a, κ
Reactivity:	QC Testing: Human
Workshop:	IV P55
Storage Buffer:	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.

This antibody is conjugated to BD Horizon™ PE-CF594, which has been developed exclusively by BD Biosciences as a better alternative to PE-Texas Red®. PE-CF594 excites and emits at similar wavelengths to PE-Texas Red® yet exhibits improved brightness and spectral characteristics. Due to PE having maximal absorption peaks at 496 nm and 564 nm, PE-CF594 can be excited by the blue (488-nm), green (532-nm) and yellow-green (561-nm) lasers and can be detected with the same filter set as PE-Texas Red® (eg 610/20-nm filter).



Flow cytometric analysis of CD49f expression on human peripheral blood lymphocytes. *Whole blood was stained with BD Horizon™ PE-CF594 Mouse Anti-Human CD49f antibody (Cat. No. 562474/562493; solid line histogram) or with a BD Horizon™ PE-CF594 Rat IgG2a, κ Isotype Control (Cat. No. 562302, dashed line histogram). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from 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 antibody was conjugated with BD Horizon™ PE-CF594 under optimum conditions, and unconjugated antibody and free PE-CF594 were removed.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
562474	PE-CF594 Rat Anti-Human CD49f	100 tests	GoH3
562302	PE-CF594 Rat IgG2a, κ Isotype Control	0.1 mg	R35-95

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit **bdbiosciences.com/contact**

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 × 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. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
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.
7. Texas Red is a registered trademark of Molecular Probes, Inc., Eugene, OR.
8. CF™ is a trademark of Biotium, Inc.
9. When excited by the yellow-green (561-nm) laser, the fluorescence may be brighter than when excited by the blue (488-nm) laser.
10. This product is provided under an Agreement between BIOTIUM and BD Biosciences. The manufacture, use, sale, offer for sale, or import of this product is subject to one or more patents or pending applications owned or licensed by Biotium, Inc. This product, and only in the amount purchased by buyer, may be used solely for buyer's own internal research, in a manner consistent with the accompanying product literature. No other right to use, sell or otherwise transfer (a) this product, or (b) its components is hereby granted expressly, by implication or by estoppel. This product is for research use only. Diagnostic uses require a separate license from Biotium, Inc. For information on purchasing a license to this product including for purposes other than research, contact Biotium, Inc., 3159 Corporate Place, Hayward, CA 94545, Tel: (510) 265-1027. Fax: (510) 265-1352. Email: btinfo@biotium.com.
11. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using multi-laser cytometers, which may directly excite both PE and CF™594.
12. Please refer to www.bdbiosciences.com/pharmingen/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, Dorken B, Rieber EP, et al, ed. *Leucocyte Typing IV*. New York: Oxford University Press; 1989:1-1208. (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)

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit **bdbiosciences.com/contact**