

Technical Data Sheet

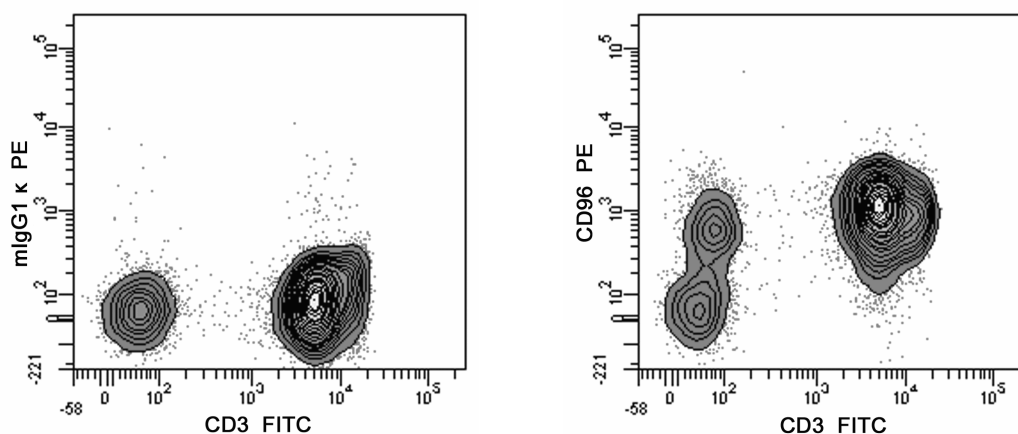
PE Mouse anti-Human CD96

Product Information

Material Number:	562379
Alternate Name:	TACTILE; T cell activation increased late expression
Size:	50 tests
Vol. per Test:	5 µl
Clone:	6F9
Immunogen:	Human CD96 Transfected Cell Line
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 6F9 monoclonal antibody specifically binds to human CD96, also known as TACTILE (T cell activation increased late expression). CD96 is a type I transmembrane glycoprotein and member of the Ig superfamily. CD96 is expressed at low levels on resting natural killer (NK) cells and T cells and at high levels on activated NK and T cells. CD96 is also expressed on some T-cell leukemia and acute myeloid leukemia cells. CD96 may serve as a marker for acute myelogenous leukemia stem cells. CD96 plays a role in the adhesive interactions of activated NK and T cells during immune responses. CD96 binds to the poliovirus receptor (CD155) that is highly expressed by some tumor cells. CD155-mediated ligation of CD96 can induce NK cell-mediated cytotoxicity. CD96-mediated uptake of CD155 may adversely affect NK cells and thus reduce their effectiveness in anti-tumor responses.



Multicolor flow cytometric analysis of CD96 expression on human peripheral blood lymphocytes. Human peripheral whole blood was stained with FITC Mouse Anti-Human CD3 (Cat. No. 555332) and with either PE Mouse IgG1 Kappa Isotype Control (Cat. No. 554680; Left Panel) or PE Mouse Anti-Human CD96 (Cat. No. 562379; Right Panel) followed by treatment with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). Two-color flow cytometric contour plots showing the expression of CD3 versus CD96 (or Ig Isotype Control staining) were derived for gated events with the forward- and side-light scattering characteristics of viable lymphocytes using BD FACSDiva™ Software v. 6.1.3. Flow cytometry was performed using a BD LSRFortessa™ 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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
555899	Lysing Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)
555332	FITC Mouse Anti-Human CD3	100 tests	UCHT1
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21

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- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
4. Please refer to www.bdbiosciences.com/pharmingen/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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Fuchs A, Cella M, Giurisato E, Shaw AS, Colonna M. Cutting edge: CD96 (tactile) promotes NK cell-target cell adhesion by interacting with the poliovirus receptor (CD155). *J Immunol*. 2004; 172(7):3994-3998. (Biology)

Hosen N, Park CY, Tatsumi N, Oji Y, Sugiyama H, Gramatzki M, Krensky AM, Weissman IL. CD96 is a leukemic stem cell-specific marker in human acute myeloid leukemia. *Proc Natl Acad Sci U S A*. 2007; 104(26):11008-11013. (Biology)

Majeti R. Monoclonal antibody therapy directed against human acute myeloid leukemia stem cells. *Oncogene*. 2011; 30(9):1009-1019. (Biology)

Wang PL, O'Farrell S, Clayberger C, Krensky AM. Identification and molecular cloning of tactile. A novel human T cell activation antigen that is a member of the Ig gene superfamily. *J Immunol*. 1992; 148(8):2600-2608. (Biology)

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