Technical Data Sheet

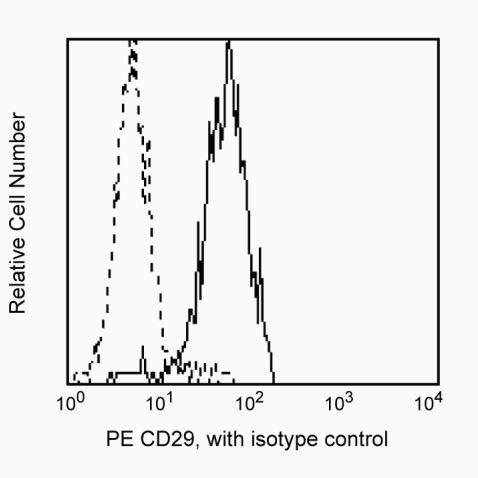
PE Mouse Anti-Human CD29

Product Information

Material Number:	**556049**
Alternate Name:	Integrin β1 Chain
Size:	100 tests
Vol. per Test:	20 µl
Clone:	HUTS-21
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human
Workshop:	NA
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Reacts with the 130 kDa integrin β1 subunit, CD29, that is expressed following cell activation as a heterodimeric complex with one of nine distinct α subunits, comprising the very late activation antigen (VLA) subfamily of adhesion receptors. The HUTS-21 β1 epitope is weakly expressed on resting lymphocytes, but is upregulated by TPA, Ca++ ionophore, or another CD29 antibody, TS2/16. This upregulation is Mn++ dependent and not supported by other divalent cations such as Ca++ and/or Mg++. The VLA receptors have a broad cellular distribution and interact with ligands like VCAm-1 and MAdCAM-1 during cell adhesion. They also interact with extra-cellular matrices including collagen, laminin, fibronectin and others. HUTS-21 antibody enhances adherence of TPA-activated lymphocytes to fibronectin.



Profile of MOLT-4 cells (in presence of Mn++) analyzed by flow cytometry

Preparation and Storage

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.
Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
555574	PE Mouse IgG2a, κ Isotype Control	100 tests	G155-178

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. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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

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Garcia-Gila M, Cabanas C, Garcia-Pardo A. Analysis of the activation state of alpha4beta1 integrin in human B cell lines derived from myeloma, leukemia or lymphoma. *FEBS Lett.* 1997; 418(3):337-340. (Biology)

Gomez J, Garcia A, R-Borlado L, et al. IL-2 signaling controls actin organization through Rho-like protein family, phosphatidylinositol 3-kinase, and protein kinase C-zeta. *J Immunol.* 1997; 158(4):1516-1522. (Biology)

Kishimoto T, von dem Borne AEG, Goyert SM,et al., ed. *Leucocyte Typing VI: White Cell Differentiation Antigens.* London: Garland Publishing; 1997. (Biology)

Luque A, Gomez M, Puzon W, Takada Y, Sanchez-Madrid F, Cabanas C. Activated conformations of very late activation integrins detected by a group of antibodies (HUTS) specific for a novel regulatory region (355-425) of the common beta 1 chain. *J Biol Chem.* 1996; 271(19):11067-11075. (Biology)