

Technical Data Sheet

Purified Mouse Anti-Human CD29

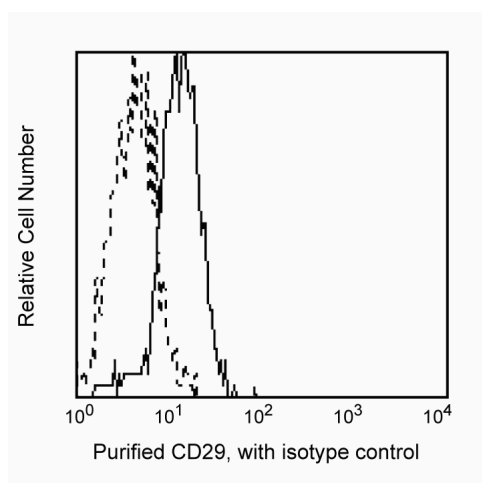
Product Information

Material Number:	556048
Alternate Name:	Integrin $\beta 1$ Chain
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	HUTS-21
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human
Workshop:	NA
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

Reacts with the 130 kDa integrin $\beta 1$ 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 $\beta 1$ 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.

This antibody is routinely tested by flow cytometric analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



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.

Store undiluted at 4°C .

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Gt/Ms
555571	Purified Mouse IgG2a Kappa Isotype Control	0.1 mg	G155-178

Product Notices

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

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)

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)