Technical Data Sheet

Purified Mouse Anti-CD29

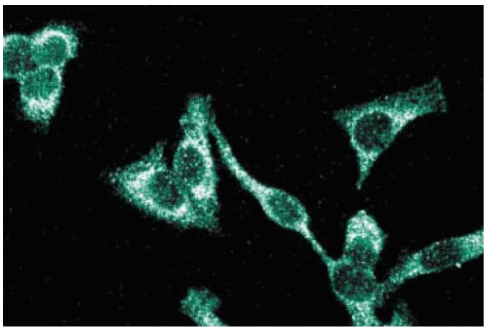
Product Information

Material Number:	**610468**
Alternate Name:	Integrin β1; platelet GPIIa; VLA β-chain
Size:	150 µg
Concentration:	250 µg/ml
Clone:	18/CD29
Immunogen:	Human CD29 aa. 76-256
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Dog, Rat, Mouse, Chicken
Target MW:	130 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Integrins are membrane receptors that mediate cell-cell or cell-matrix adhesion. All integrins are transmembrane heterodimers composed of α and β subunits and are connected to the cytoskeleton. At least 20 integrins, formed from combinations of 12 α and 9 β subunits, have been reported. Many of these have been implicated as transducers of molecular signals. The β1 subgroup of this receptor family comprises at least six different dimer combinations. Among these combinations, α2β1 is associated with type I collagen and laminin binding and regulation, α3β1 is a receptor for laminin and epiligrin, and α5β1 is a fibronectin receptor. β1 integrins play an important role in several aspects of epidermal differentiation and morphogenesis. Expression of the β1 subunit is regulated by growth factors such as TGF-β1. Integrin activation, which enhances binding of T cells to endothelium, is regulated in part by phosphatidylinositol 3-kinase. Focal adhesion kinase (FAK) and paxillin have been reported to independently bind the C-terminal, cytoplasmic domain of the β1 subunit. FAK is reported to be enzymatically activated upon engagement of integrins with their ligands and paxillin is phosphorylated on tyrosine upon activation of FAK.

Western blot analysis of CD29 (Integrin β1) on a A431 cell lysate (Human epithelial carcinoma; ATCC CRL-1555). *Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1: 10,000 diluton of the anti-CD29 antibody.*



Immunofluorescence staining of HeLa cells (Human cervical epitheloid carcinoma; ATCC CCL-2.2).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Tested During Development
Immunofluorescence	Tested During Development
Immunohistochemistry-formalin (antigen retrieval required)	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal
611447	A431 Cell Lysate	500 µg	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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Ivaska J, Whelan RD, Watson R, Parker PJ. PKC epsilon controls the traffic of beta1 integrins in motile cells. *EMBO J.* 2002; 21(14):3608-3619.(Biology: Immunofluorescence, Immunoprecipitation, Western blot)

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Yeh CH, Peng HC, Huang TF. Accutin, a new disintegrin, inhibits angiogenesis in vitro and in vivo by acting as integrin alphavbeta3 antagonist and inducing apoptosis. *Blood.* 1998; 92(9):3268-3276.(Biology: Flow cytometry)