

PRODUCT INFORMATION

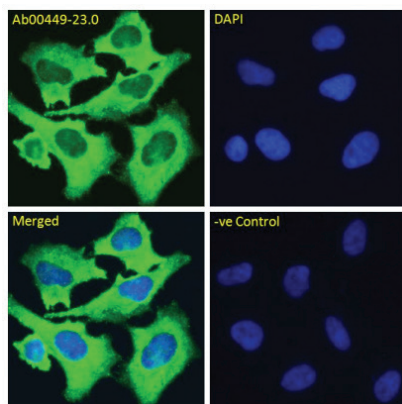


Integrin $\alpha 5\beta 1$ Chimeric Monoclonal Antibody (Clone M200 (Volociximab)) Item No. 37154

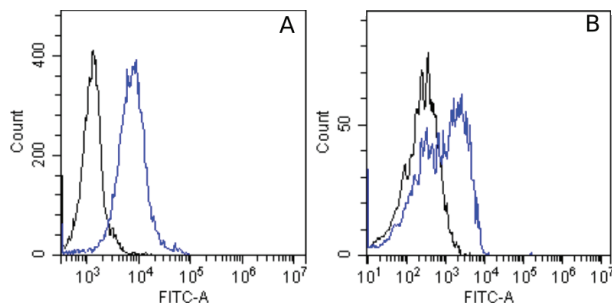
Overview and Properties

Contents:	This vial contains 200 μ g of protein A-affinity purified monoclonal antibody.
Synonyms:	CD29, CD49E, CD49 Antigen-like Family Member E, Cluster of Differentiation 29, Fibronectin Receptor Subunit α , Fibronectin Receptor Subunit β , GPIIa, ITGA5, ITGB1, Platelet Glycoprotein IIa, Very Late Antigen-5, VLA-4 Subunit β , VLA-5
Immunogen:	Recombinant human $\alpha 5\beta 1$
Species Reactivity:	(+) Human; other species not tested
Uniprot No.:	P08648
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥ 1 year
Storage Buffer:	PBS with 0.02% ProClin™ 300
Clone:	M200 (Volociximab)
Host:	Chimeric Monoclonal Antibody
Isotype:	IgG4k
Applications:	ELISA, Flow Cytometry (FC), Immunofluorescence (IF), and Immunohistochemistry (IHC); The optimal working concentration/dilution should be determined empirically.

Images



Immunofluorescent labeling of fixed HeLa cells labeled with Integrin $\alpha 5\beta 1$ Chimeric Monoclonal Antibody (Clone M200 (Volociximab)). Immunofluorescence analysis of paraformaldehyde fixed HeLa cells, permeabilized with 0.15% Triton stained with the chimeric rabbit IgG version of M200 at 10 μ g/ml for 1 hour followed by Alexa Fluor® 488 secondary antibody (1 μ g/ml), showing cytoplasmic and membrane staining. The nuclear stain is DAPI (blue). Panels show from left-right, top-bottom Ab00449-23.0, DAPI, merged channels and a negative control. The negative control was stained with unimmunized rabbit IgG followed by Alexa Fluor® 488 secondary antibody.



Flow cytometry using the Integrin $\alpha 5\beta 1$ Chimeric Monoclonal Antibody (Clone M200 (Volociximab)) (Item No. 37154). PBMC's (A) and U937 cells (B) were stained with unimmunized rabbit IgG antibody (black line) or the rabbit-chimeric version of M200 (Volociximab) (blue line) at a concentration of 10 μ g/ml for 30 minutes at RT. After washing, bound antibody was detected using anti-rabbit IgG JK (FITC-conjugate) antibody at 2 μ g/ml and cells analyzed on a FACSCanto flow-cytometer.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Integrin $\alpha 5\beta 1$ is a cell adhesion receptor that is involved in the attachment of cells to the extracellular matrix (ECM) and cell-cell interactions.¹ It is composed of a heterodimer of two integrin subunits, integrin $\alpha 5$, also known as CD49E, that binds to the RGD sequence and central cell-binding domain of fibronectin, and integrin $\beta 1$, also known as CD29, that interacts with the cytoskeleton and intracellular signaling molecules.^{2,3} Integrin $\alpha 5\beta 1$ localizes to the cell surface and mediates outside-in and inside-out signaling cascades that regulate angiogenesis and cell differentiation, as well as migration, development, and hematopoiesis.^{1,4} An anti-integrin $\alpha 5\beta 1$ monoclonal antibody inhibits tube formation and proliferation of human umbilical vein endothelial cells (HUVECs) *in vitro* and prevents laser-induced choroidal neovascularization in a cynomolgus monkey model of macular degeneration.⁵ Integrin $\alpha 5\beta 1$ levels are increased in tumoral neovasculature.⁶ Cayman's Integrin $\alpha 5\beta 1$ Chimeric Monoclonal Antibody (Clone M200 (Volociximab)) was produced recombinantly from the original M200 antibody sequence and can be used for ELISA, flow cytometry (FC), immunofluorescence (IF), and immunohistochemistry (IHC) applications. The M200 antibody was generated by fusing human IgG4k constant domains to the antigen-binding domain of a mouse anti-integrin $\alpha 5\beta 1$ monoclonal antibody.⁵

References

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