

ITGB1 Monoclonal Antibody (HM beta 1-1), FITC

Catalog NumberMA1-81468

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Mouse, Rat
Host/Isotope	Armenian hamster / IgG	Tested Applications	Dilution *
Class	Monoclonal		
Type	Antibody	Flow Cytometry (Flow)	Neat-1:10
Clone	HM beta 1-1	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Immunogen	Purified murine VLA-4 antigen.		
Conjugate	FITC		
Form	Liquid		
Concentration	0.1 mg/mL		
Purification	Protein G		
Storage buffer	PBS, pH 7.4, with 1% BSA		
Contains	0.09% sodium azide		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles. Store in the dark.		

Product specific information

For FACS analysis, use 10 µL of the suggested working dilution to label 1x10⁶ cells in 100 µL. Hamster anti Mouse CD29 antibody, clone HM beta 1-1 recognizes the murine integrin beta 1 subunit (CD29), a approximately 110 kDa cell surface glycoprotein that is widely expressed by a variety of cells including all leucocytes.

Background/Target Information

ITGB1 (Integrin Subunit Beta 1, beta1 integrin subunit, GPIIa, CD29) is a 110 kDa cell surface glycoprotein that is widely expressed by a variety of cells including all leucocytes. ITGB1 forms non-covalently linked heterodimers with at least 6 different alpha chains (alpha1-alpha6, CDa-f) determining the binding properties of beta1 (VLA) integrins. ITGB1 is a cell adhesion molecule appearing on platelets, as the common Beta subunit of the very late activation antigen (VLA), and as a component of various protein complexes binding to extracellular matrix proteins. Decreased expression of ITGB1 correlates with acquiring multidrug resistance of tumor cells in the presence of anti-tumor drug. ITGB1 is up-regulated in leukocytes during emigration and extravascular migration and appear to be critically involved in regulating the immune cell trafficking from blood to tissue. Further, ITGB1 also regulates tissue damage and disease symptoms related to inflammatory bowel disease. Through an ITGB1-dependent mechanism, fibronectin and type I collagen enhance cytokine secretion of human airway smooth muscle in response to IL-1beta. More than 8 beta subunits with numerous splice variant isoforms have been identified in mammals. There are two major forms of integrin beta1: beta1A and beta1D, which differ in 13 amino acids. The distribution pattern in adult tissues for integrin beta types are mutually exclusive. Beta1A is present in all tissues, except cardiac and skeletal muscle which express the beta1D variant.

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization.

Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample.

NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.