

# ITGA2 Monoclonal Antibody (AK7), Biotin

Catalog NumberMA1-80244

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Human, Non-human primate
Host/Isotope	Mouse / IgG1	Published species	Human
Class	Monoclonal	Tested Applications	Dilution *
Type	Antibody	Flow Cytometry (Flow)	Assay-dependent
Clone	AK7	Published Applications	
Immunogen	Proprietary Immunogen.	Flow Cytometry (Flow)	See 1 publications below
Conjugate	Biotin	* 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.	
Form	Liquid		
Concentration	0.1 mg/mL		
Purification	Protein A		
Storage buffer	PBS 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.		

## Product specific information

For FACS analysis, use 10 µL of the suggested working dilution to label 1x10<sup>6</sup> cells in 100 µL. Mouse anti Human CD49b antibody, clone AK7 recognizes the integrin alpha 2 subunit, a approximately 160 kDa glycoprotein that non-covalently associates with the approximately 130 kDa integrin beta 1 subunit to form the VLA-2 complex.

## Background/Target Information

CD49b (Integrin alpha 2, Integrin alpha 2 chain, VLA-2 alpha chain, HM alpha 2) is a member of the integrin family. It is a glycoprotein with molecular weight of 150 kD, and it complexes with CD29 (Integrin beta 1) to form the heterodimeric integrin VLA-2 (integrin alpha 2 beta 1, or GPIa/IIa) complex. VLA-2 is an extracellular receptor for laminin, collagen, and fibronectin, and interaction with its ligands results in the activation of intracellular signaling pathways. It has reported roles in VEGF-induced angiogenesis in vivo, as well as adhesion and lymphocyte activation. CD49b is expressed by NK cells, NK-T cells, monocytes, platelets, and epithelial cells. It is also expressed on adaptive immune cells such as T and B cells, specifically on a subset of CD4+ T cells in the spleen, on intraepithelial and lamina propria lymphocytes in the intestine, as well as on a population of peripheral CD4+ type 1 T regulatory (Tr1) cells that co-express LAG-3.

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.

1 Flow Cytometry References

Species / Dilution	Summary
	MA1-80244 was used in flow cytometry to describe a method to expand antigen-specific regulatory T cells in vivo.
Human / Not Cited	<p>Nature ( 2016; 530: 434)</p> <p><b>"Expanding antigen-specific regulatory networks to treat autoimmunity."</b></p> <p>Author(s):Clemente-Casares X,Blanco J,Ambalavanan P,Yamanouchi J,Singha S,Fandos C,Tsai S,Wang J,Garabatos N,Izquierdo C,Agrawal S,Keough MB,Yong VW,James E,Moore A,Yang Y,Stratmann T,Serra P,Santamaria P</p> <p>PubMed Article URL:<a href="http://dx.doi.org/10.1038/nature16962">http://dx.doi.org/10.1038/nature16962</a></p>

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.