

Biotin Anti-Integrin beta 7 antibody [FIB504] ab95816

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Overview

Product name	Biotin Anti-Integrin beta 7 antibody [FIB504]
Description	Biotin Rat monoclonal [FIB504] to Integrin beta 7
Host species	Rat
Conjugation	Biotin
Tested applications	Suitable for: ICC, Flow Cyt
Species reactivity	Reacts with: Mouse, Human
Immunogen	Tissue, cells or virus corresponding to Mouse Integrin beta 7. TK1 murine t-cell lymphoma
Positive control	Normal Human peripheral blood cells
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide
Purity	Protein G purified
Clonality	Monoclonal
Clone number	FIB504
Isotype	IgG2a
Light chain type	kappa

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab95816 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC		Use at an assay dependent concentration.
Flow Cyt		Use 0.125µg for 10 ⁵ cells. Range from 10 ⁵ to 10 ⁸ cells/test in a final volume of 100 µl. ab18445 - Rat monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

Target

Function

Integrin alpha-4/beta-7 (Peyer patches-specific homing receptor LPAM-1) is an adhesion molecule that mediates lymphocyte migration and homing to gut-associated lymphoid tissue (GALT). Integrin alpha-4/beta-7 interacts with the cell surface adhesion molecules MADCAM1 which is normally expressed by the vascular endothelium of the gastrointestinal tract. Interacts also with VCAM1 and fibronectin, an extracellular matrix component. It recognizes one or more domains within the alternatively spliced CS-1 region of fibronectin. Interactions involves the tripeptide L-D-T in MADCAM1, and L-D-V in fibronectin. Binds to HIV-1 gp120, thereby allowing the virus to enter GALT, which is thought to be the major trigger of AIDS disease. Interaction would involve a tripeptide L-D-I in HIV-1 gp120. Integrin alpha-E/beta-7 (HML-1) is a receptor for E-cadherin.

Tissue specificity

Expressed in a variety of leukocyte lines.

Sequence similarities

Belongs to the integrin beta chain family.
Contains 1 VWFA domain.

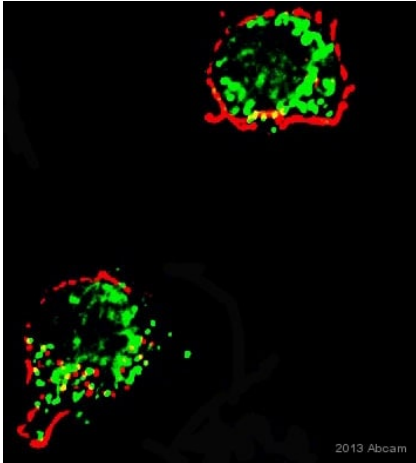
Domain

Domain I contains three cation-binding sites: the ligand-integrin-binding site (LIMBS), the metal ion-dependent adhesion site (MIDAS), and the adjacent to MIDAS site (ADMIDAS). In the absence of a ligand or in calcium-dependent binding, only ADMIDAS is occupied. In magnesium-dependent binding all three sites bind metal ions. LIMBS positively modify ligand binding whereas ADMIDAS negatively modify ligand binding.

Cellular localization

Membrane.

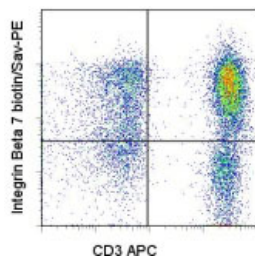
Images



ICC/IF image of Integrin beta 7 staining on RAW264.7 cell line using ab95816 (1:300). The cells were fixed using formaldehyde and permeabilized using 0.2% Triton X-100. The cells were blocked using 10% goat serum for 1 hour at 20°C. The cells were incubated with ab95816 (1:300) for 1 hour at 20°C. The staining was detected using Streptavidin conjugated to Alexa Fluor 647 (1:350)

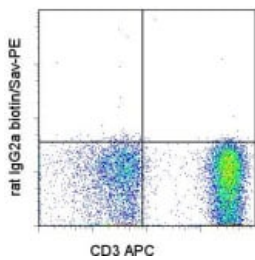
Immunocytochemistry - Biotin Anti-Integrin beta 7 antibody [FIB504] (ab95816)

This image is courtesy of an anonymous abreview.



Staining of normal Human peripheral blood cells with 0.06 µg of ab95816 followed by Streptavidin PE. Cells in the lymphocyte gate were used for analysis.

Flow Cytometry - Biotin Anti-Integrin beta 7 antibody [FIB504] (ab95816)



Staining of normal Human peripheral blood cells with Anti-Human CD3 APC and 0.125 µg of Rat IgG2a ? Isotype Control Biotin. Cells in the lymphocyte gate were used for analysis.

Flow Cytometry - Biotin Anti-Integrin beta 7 antibody [FIB504] (ab95816)

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