

For Research Use Only

Integrin alpha 1/CD49a Recombinant monoclonal antibody, PBS Only

Catalog Number:87056-3-PBS



Basic Information

Catalog Number: 87056-3-PBS	GenBank Accession Number: BC137121	Purification Method: Protein A purification
Size: 100ug , Concentration: 1 mg/ml by Nanodrop;	GeneID (NCBI): 3672	CloneNo.: 251984D12
Source: Rabbit	UNIPROT ID: P56199	
Isotype: IgG	Full Name: integrin, alpha 1	
Immunogen Catalog Number: EG2089	Calculated MW: 1179 aa, 131 kDa	
	Observed MW: 180-200 kDa	

Applications

Tested Applications:
WB, IHC, IF-P, Indirect ELISA

Species Specificity:
human, mouse, rat

Background Information

The integrins are a superfamily of cell adhesion receptors that bind to extracellular matrix ligands, cell-surface ligands, and soluble ligands (PMID: 17543136). They are transmembrane $\alpha\beta$ heterodimers and at least 24 distinct integrin heterodimers are formed by the combination of 18 α and eight β known subunits (PMID: 17543136; 20029421). In addition to mediating cell adhesion, integrins also play important roles in modulating signal transduction pathways that control cellular responses including migration, proliferation, differentiation, and apoptosis (PMID:19118207). Integrin alpha-1 (ITGA1, CD49a) combines with the beta 1 subunit (ITGB1, CD29) to form a cell-surface receptor for collagen and laminin. This receptor is involved in cell-cell adhesion and may play a role in inflammation and fibrosis. Integrin alpha-1 is a transmembrane glycoprotein with an apparent molecular weight of 180-250 kDa, larger than the calculated molecular weight of 131 kDa (PMID: 2475259; 3257425; 11557277; 18840653).

Storage

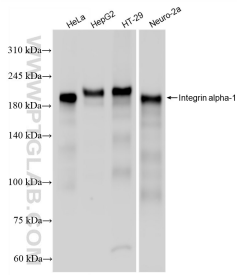
Storage:
Store at -80°C.

Storage Buffer:
PBS only, pH7.3

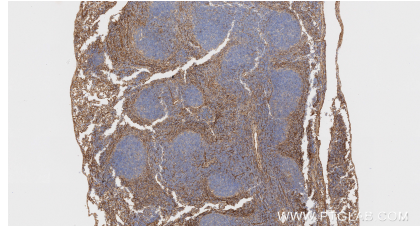
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA) E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

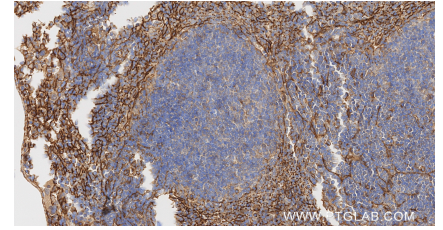
Selected Validation Data



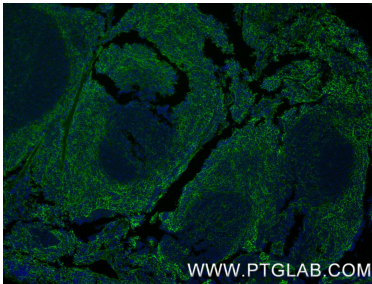
Various lysates were subjected to SDS PAGE followed by western blot with 87056-3-RR (Integrin alpha-1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 87056-3-PBS in a different storage buffer formulation.



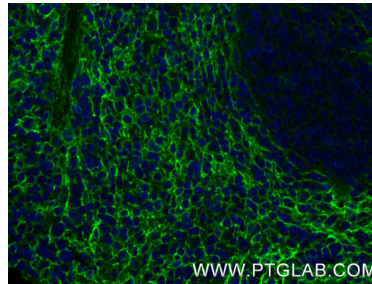
Immunohistochemical analysis of paraffin-embedded mouse spleen tissue slide using 87056-3-RR (Integrin alpha 1 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 87056-3-PBS in a different storage buffer formulation.



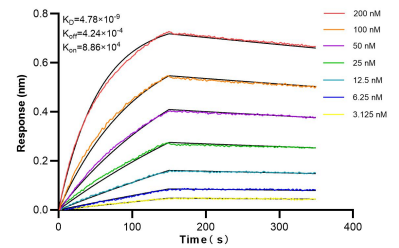
Immunohistochemical analysis of paraffin-embedded mouse spleen tissue slide using 87056-3-RR (Integrin alpha 1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 87056-3-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse spleen tissue using Integrin alpha 1 antibody (87056-3-RR, Clone: 251984D12) at dilution of 1:500 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 87056-3-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse spleen tissue using Integrin alpha 1 antibody (87056-3-RR, Clone: 251984D12) at dilution of 1:500 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 87056-3-PBS in a different storage buffer formulation.



Bi-layer interferometry (BLI) kinetic assays of 87056-3-RR against Human Integrin alpha 1 were performed. The affinity constant is 4.78 nM.