

For Research Use Only

# Integrin beta-5 Recombinant antibody, PBS Only (Capture/Detector)

Catalog Number: 83514-3-PBS



## Basic Information

<b>Catalog Number:</b> 83514-3-PBS	<b>GenBank Accession Number:</b> BC006541	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ug, Concentration: 1 mg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 3693	<b>CloneNo.:</b> 240401G11
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P18084	
<b>Isotype:</b> IgG	<b>Full Name:</b> integrin, beta 5	
<b>Immunogen Catalog Number:</b> AG29783	<b>Calculated MW:</b> 88 kDa	
	<b>Observed MW:</b> 88-100 kDa	

## Applications

**Tested Applications:**  
WB, IHC, FC (Intra), Cytometric bead array, Sandwich ELISA, Indirect ELISA, Sample test

**Species Specificity:**  
human

## Product Information

83514-3-PBS targets Integrin beta-5 as part of a matched antibody pair:

MP00512-1: 83514-2-PBS capture and 83514-3-PBS detection (validated in Cytometric bead array)

MP00512-2: 83514-5-PBS capture and 83514-3-PBS detection (validated in Cytometric bead array)

MP00512-4: 83514-3-PBS capture and 83514-1-PBS detection (validated in Sandwich ELISA)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

## Background Information

ITGB5, also known as Integrin beta-5. It is expected to be located in the plasma membrane and mitochondria, which is ubiquitinated in placenta and gall bladder. ITGB5 is a member of integrins and was proved to be associated with pathological processes in several tumors (PMID: 34966851). It is reported that TGB5 is highly expressed in hepatocellular carcinoma (HCC), and miR-185 regulates the expression of  $\beta$ -catenin through the ITGB5-dependent manner and affects the proliferation and migration of HCC cells (PMID: 35223869). The molecular weight of ITGB5 is 88 kDa, and the glycosylation modification also exists.

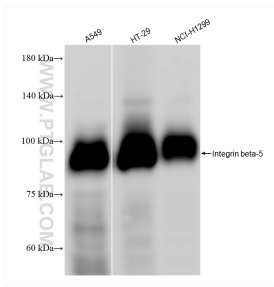
## Storage

**Storage:**  
Store at -80°C.  
**Storage Buffer:**  
PBS Only

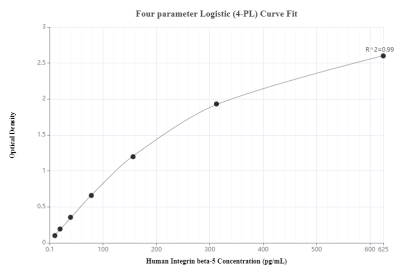
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

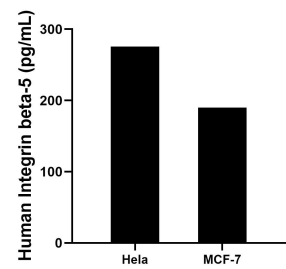
Selected Validation Data



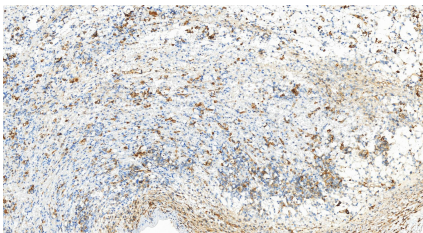
Various lysates were subjected to SDS PAGE followed by western blot with 83514-3-RR (Integrin beta-5 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83514-3-PBS in a different storage buffer formulation.



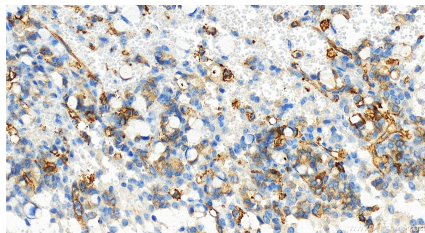
Sandwich ELISA standard curve of MP00512-4, Integrin Beta 5 Recombinant Matched Antibody Pair - PBS only. 83514-3-PBS was coated to a plate as the capture antibody and incubated with serial dilutions of standard Ag29783.83514-1-PBS was HRP conjugated as the detection antibody. Range: 9.766-625 pg/mL.



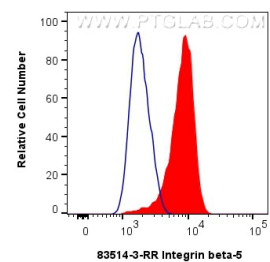
The mean Integrin Beta 5 concentration was determined to be 275.71 pg/mL in HeLa cell extract based on a 2.8 mg/mL extract load and 190.06 pg/mL in MCF-7 cell extract based on a 3.1 mg/mL extract load.



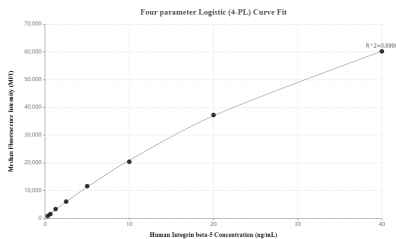
Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue slide using 83514-3-RR (Integrin beta-5 antibody) at dilution of 1:200 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83514-3-PBS in a different storage buffer formulation.



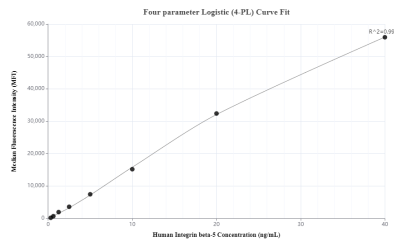
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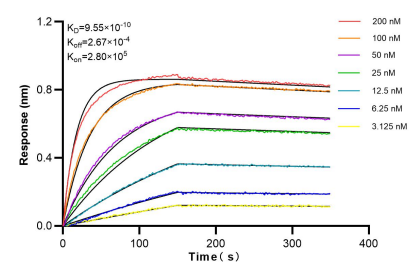
1x10<sup>6</sup> HeLa cells were intracellularly stained with 0.25 ug Integrin beta-5 Recombinant antibody (83514-3-RR, Clone:240401G11) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C). This data was developed using the same antibody clone with 83514-3-



Cytometric bead array standard curve of MP00512-1, Integrin Beta 5 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83514-2-PBS. Detection antibody: 83514-3-PBS. Standard: Ag29783. Range: 0.313-40 ng/mL.



Cytometric bead array standard curve of MP00512-2, Integrin Beta 5 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83514-5-PBS. Detection antibody: 83514-3-PBS. Standard: Ag29783. Range: 0.313-40 ng/mL.



Bilayer interferometry (BLI) kinetic assays of 83514-3-RR against Human Integrin beta-5 were performed. The affinity constant is 0.955 nM.