

## Rabbit Anti-Integrin alpha 4 antibody

SL0641R

**Product Name** Integrin alpha 4

**Chinese Name** 整合素  $\alpha 4$  (CD49d) 抗体

**Alias** Alpha 4 subunit of VLA 4 receptor;ITG- $\alpha 4$ : Antigen CD49D; CD 49d ; CD49d; CD49d antigen; alpha IV; ITGA 4; ITGA4; LPAM23; MGC90518; Very Late Activation Antigen 4; Very Late Antigen 4; Receptor Alpha 4 Subunit; VLA 4; VLA4; integrin alpha-4; ITA4\_HUMAN; Integrin  $\alpha 4$ ; Integrin  $\alpha 4$

**Research Area** Cell biology immunology Signal transduction Stem cells Cell adhesion molecule

**Immunogen Species** Rabbit

**Clonality** Polyclonal

**React Species** Human, (predicted: Mouse, Rat, Cow, Horse, Rabbit, )  
WB=1:500-2000,ELISA=1:5000-10000

**Applications** not yet tested in other applications.  
optimal dilutions/concentrations should be determined by the end user.

**Theoretical molecular weight** 111kDa

**Detection molecular weight** 150 kDa

**Cellular localization** The cell membrane

**Form** Liquid

**Concentration** 1mg/ml

**immunogen** KLH conjugated synthetic peptide derived from human Integrin alpha 4: 551-650/1032 <Extraction buffer>

**Lsotype** IgG

**Purification** affinity purified by Protein A

**Buffer Solution** 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

**Storage** Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

**Attention** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic purposes.

**PubMed**

[PubMed](#)

The gene encodes a member of the integrin alpha chain family of proteins. Integrins are heterodimeric proteins composed of an alpha chain and a beta chain that function in cell surface adhesion and signaling. The alpha-4 beta-1 preproprotein is proteolytically processed to generate light and heavy chains that comprise the alpha-4 beta-1 subunit. The alpha-4 beta-1 subunit associates with a beta 1 or beta 7 subunit to form an integrin that may play a role in cell migration. Integrin alpha-4 beta-1 is a therapeutic target for the treatment of multiple sclerosis, Crohn's disease and inflammatory bowel disease. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2015]

**Function:**

Integrins alpha-4/beta-1 (VLA-4) and alpha-4/beta-7 are receptors for fibronectin. They recognize CS-1 and CS-5 within the alternatively spliced CS-1 and CS-5 regions of fibronectin. They are also receptors for alpha-4/beta-1 recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-4/beta-7 is also a receptor for alpha-4/beta-7 recognizes the sequence L-D-T in MADCAM1. On activated endothelial cells integrin VLA-4 triggers aggregation for most VLA-4-positive leukocyte cell lines. It may also participate in cytolytic T-cell killing of target cells.

**Subunit:**

Heterodimer of an alpha and a beta subunit.

**Subcellular Location:**

Membrane; Single-pass type I membrane protein.

**Product Detail**

**Post-translational modifications:**

Phosphorylation on Ser-1027 inhibits PXN binding.

**Similarity:**

Belongs to the integrin alpha chain family.  
Contains 7 FG-GAP repeats.

**SWISS:**

P13612

**Gene ID:**

3676

**Database links:**

[Entrez Gene: 3676](#) Human

[Entrez Gene: 16401](#) Mouse

[Omim: 192975](#) Human

[SwissProt: P13612](#) Human

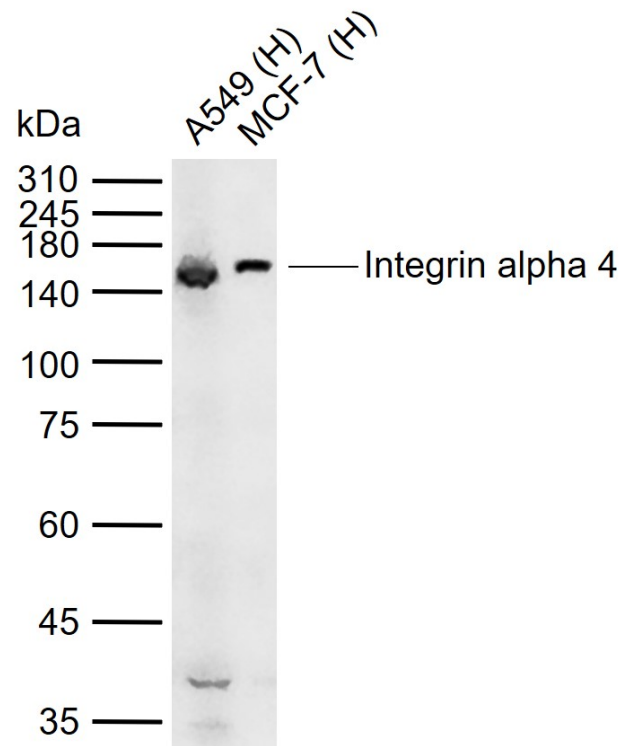
[SwissProt: Q00651](#) Mouse

[Unigene: 440955](#) Human

[Unigene: 31903](#) Mouse

整合素- $\alpha$ -4 型 Integrin  $\alpha$ 4 (CD49d)整合素- $\alpha$  是介导细胞与 Extracellular matrix 粘附作用的

**Product  
Picture**



Sample:

Lane 1: Human A549 cell lysates

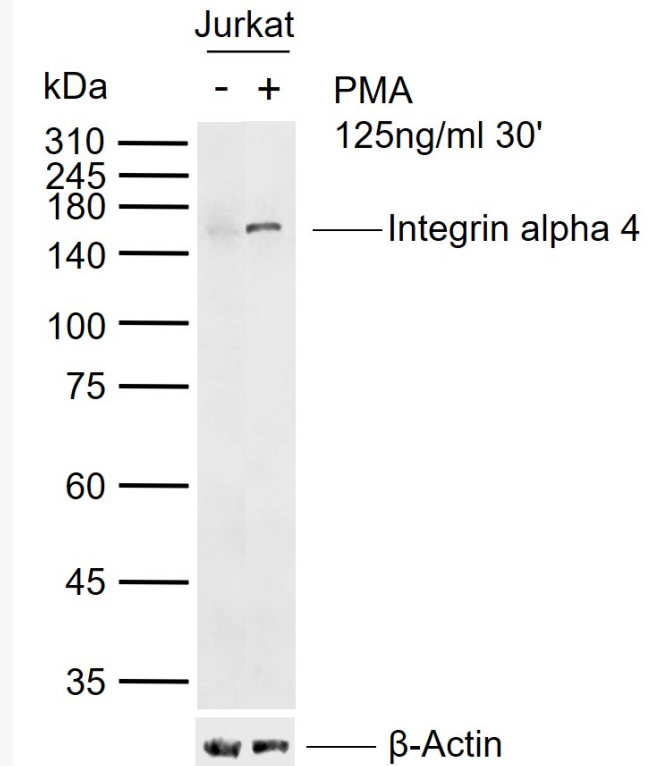
Lane 2: Human MCF-7 cell lysates

Primary: Anti-Integrin alpha 4 (SL0641R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 111 kDa

Observed band size: 150 kDa



Sample:

Lane 1: Normal human Jurkat cell lysates

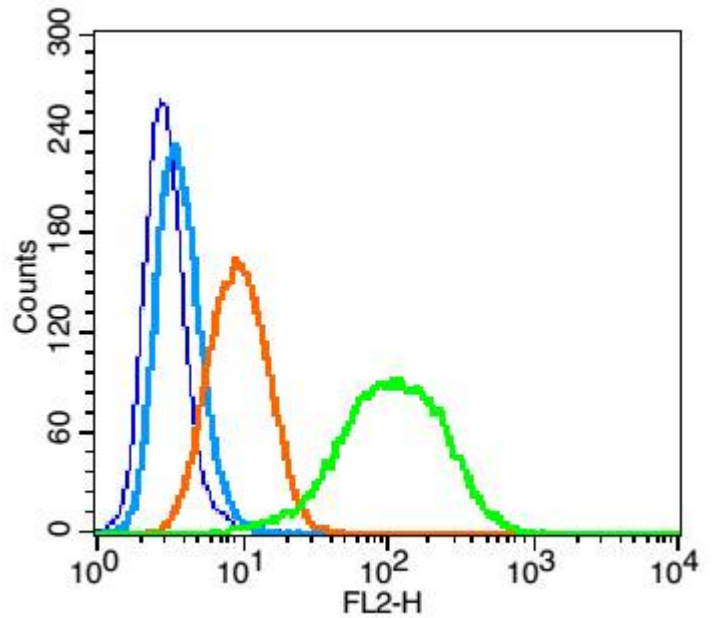
Lane 2: Jurkat treated with PMA 125ng/ml 30min

Primary: Anti-Integrin alpha 4 (SL0641R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 111 kDa

Observed band size: 150 kDa



Blank control: U937(blue).

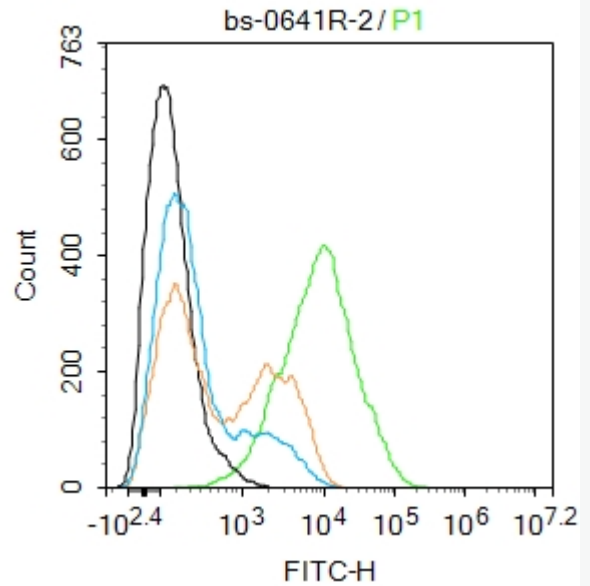
Primary Antibody: Rabbit Anti-Integrin alpha 4 antibody(SL0641R), Dilution: 1 $\mu$ g in 100  $\mu$ L  
 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions );

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS contain

#### Protocol

The cells were fixed with 2% paraformaldehyde (10 min). Primary antibody (SL0641R, 1 $\mu$ g /  
 incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 10% goat serum  
 non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was add  
 buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice.  
 events was performed.



Blank control:THP-1.

Primary Antibody (green line): Rabbit Anti-Integrin alpha 4 antibody (SL0641R)

Dilution: 2 $\mu$ g /10<sup>6</sup> cells;

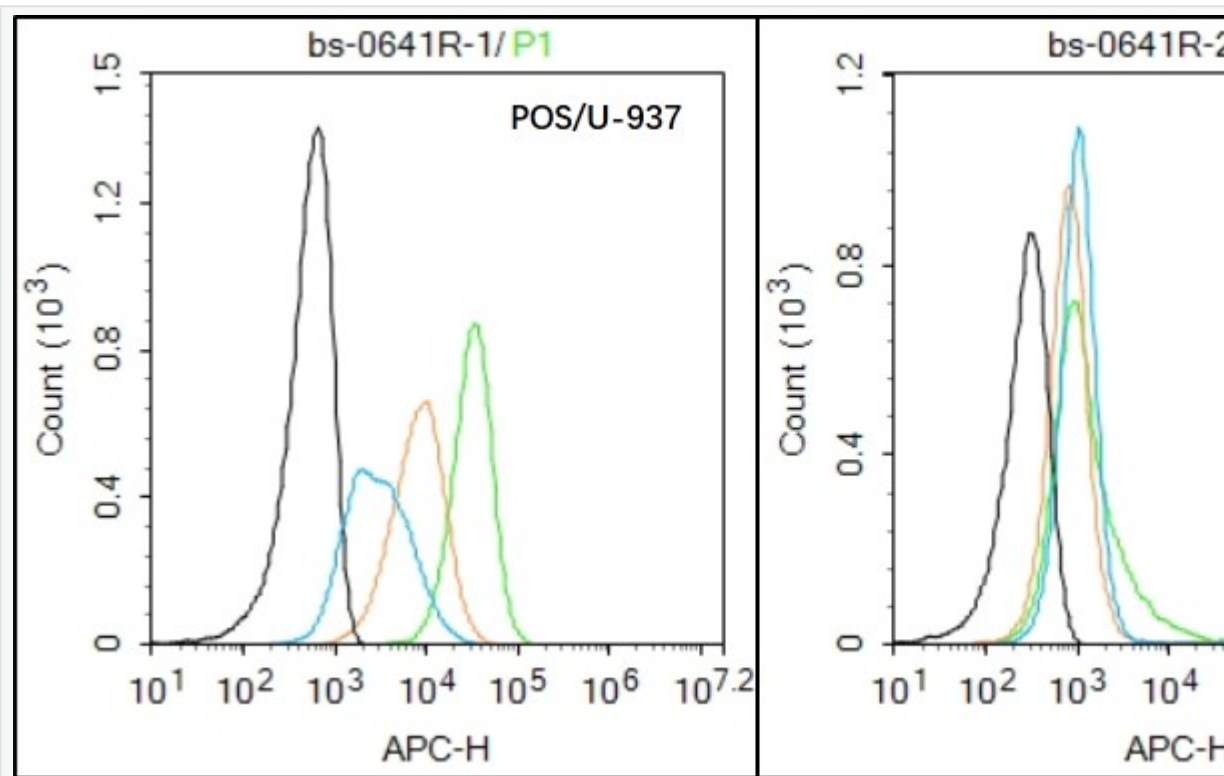
Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody : Goat anti-rabbit IgG-FITC

Dilution: 1 $\mu$ g /test.

#### Protocol

The cells were incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody was stained for 30 min at room temperature. Acquisition of 20,000 events was performed.



Black line : Positive blank control (U937); Negative blank control (MCF7)

Green line : Primary Antibody (Rabbit Anti-Integrin alpha 4 antibody (SL0641R) )

Orange line: Isotype Control Antibody (Rabbit IgG) .

Blue line : Secondary Antibody (Goat anti-rabbit IgG-AF647)

U937 (Positive) and MCF7 (Negative control) cells (black) were incubated in 5% BSA buffer at room temperature. Cells were then stained with Integrin alpha 4 Antibody(SL0641R)at 1:500 in 5% BSA buffer and incubated for 30 min at room temperature, washed twice with 2% BSA in PBS, followed by secondary antibody(blue) incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells were then stained with primary antibody (green), and isotype control (orange).