

Anti-Integrin Alpha 4/Itga4 Antibody Picoband®

Catalog Number: A00468-2

About Itga4

CD49d is an integrin alpha subunit. It makes up half of the alpha4beta1 lymphocyte homing receptor. The gene encodes a member of the integrin alpha chain family of proteins. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain that function in cell surface adhesion and signaling. The encoded preproprotein is proteolytically processed to generate light and heavy chains that comprise the alpha 4 subunit. This subunit associates with a beta 1 or beta 7 subunit to form an integrin that may play a role in cell motility and migration. This integrin is a therapeutic target for the treatment of multiple sclerosis, Crohn's disease and inflammatory bowel disease. Alternative splicing results in multiple transcript variants.

Overview

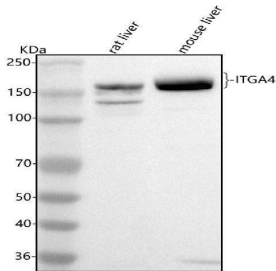
Product Name	Anti-Integrin Alpha 4/Itga4 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Integrin Alpha 4/Itga4 Antibody Picoband® catalog # A00277-2. Tested in WB, FCM, ELISA applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	Q00651

Technical Details

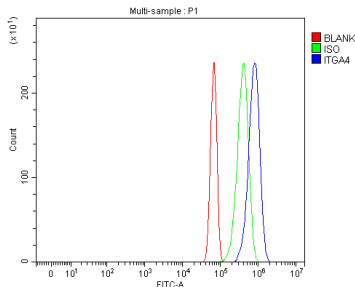
Immunogen	E.coli-derived mouse Integrin Alpha 4/Itga4 recombinant protein (Position: Y41-D963). Mouse Itga4 shares 85.2% amino acid (aa) sequence identity with human Itga4.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 µg/ml, Mouse, Rat Flow Cytometry (Fixed), 1-3 µg/1x10 ⁶ cells, Mouse ELISA, 0.1-0.5 µg/ml, -

Anti-Integrin Alpha 4/Itga4 Antibody Picoband® (A00468-2) Images



Western blot analysis of Integrin Alpha 4/Itga4 using anti-Integrin Alpha 4/Itga4 antibody (A00468-2). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: rat liver tissue lysates, Lane 2: mouse liver tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Integrin Alpha 4/Itga4 antigen affinity purified polyclonal antibody (Catalog # A00468-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Integrin Alpha 4/Itga4 at approximately 150-180 kDa. The expected band size for Integrin Alpha 4/Itga4 is at 116 kDa.



Flow Cytometry analysis of NIH/3T3 cells using anti-Integrin Alpha 4/Itga4 antibody (A00468-2). Overlay histogram showing NIH/3T3 cells stained with A00468-2 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-Integrin Alpha 4/Itga4 Antibody (A00468-2, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight® 488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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Anti-Integrin Alpha 4/Itga4 Antibody

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