BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-CD11a/ITGAL Antibody Picoband™

Catalog Number: A04466-1

About ITGAL

CD11a, also known as ITGAL or LFA-1, is a human gene which functions in the immune system. It is mapped to 16p11.2. CD11a is involved in cellular adhesion and costimulatory signaling. It is the target of the drug efalizumab. CD11a encodes the integrin alpha L chain. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This I-domain containing alpha integrin combines with the beta 2 chain (ITGB2) to form the integrin lymphocyte function-associated antigen-1 (LFA-1), which is expressed on all leukocytes. CD11a plays a central role in leukocyte intercellular adhesion through interactions with its ligands, ICAMs 1-3 (intercellular adhesion molecules 1 through 3), and also functions in lymphocyte costimulatory signaling. It is one of the two components, along with CD18, which form lymphocyte function-associated antigen-1.

Overview

Product Name	Anti-CD11a/ITGAL Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-CD11a/ITGAL Antibody Picoband™ catalog # A04466-1. Tested in Flow Cytometry, IHC, ICC, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store 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 freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P20701

Technical Details

Immunogen	E.coli-derived human CD11a recombinant protein (Position: F161-L349). Human CD11a shares 73.7% mino acid (aa) sequence identity with mouse CD11a.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Frozen Section), 0.5-1ug/ml Immunocytochemistry, 0.5-1ug/ml Western blot, 0.1-0.5ug/ml Flow Cytometry, 1-3ug/1x10^6 cells

BOSTER
antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

Anti-CD11a/ITGAL Antibody Picoband™ (A04466-1) Images

Figure 1. Western blot analysis of CD11a using anti-CD11a antibody (A04466-1).
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 50ug of sample under reducing conditions.
lane 1: JURKAT cell lysates,
lane 2: CEM whole cell lysates.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-CD11a antigen affinity purified polyclonal antibody (Catalog # A04466-1) 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 1:10000 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 CD11a at approximately 150KD. The expected band size for CD11a is at 129KD.

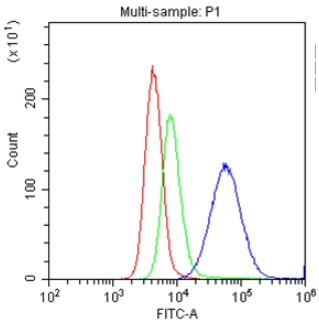

Figure 2. Flow Cytometry analysis of U937 cells using anti-CD11a antibody (A04466-1).
Overlay histogram showing U937 cells stained with A04466-1 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD11a Antibody (A04466-1,1ug/1x106 cells) for 30 min at 20°C. DyLight488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control. "

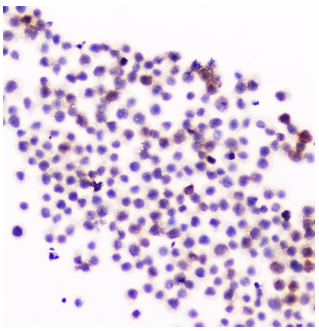

Figure 3. IHC analysis of CD11a using anti-CD11a antibody (A04466-1).
CD11a was detected in immunocytochemical section of U937 Cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 1ug/ml rabbit anti-CD11a Antibody (A04466-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

2 Publications Citing This Product

1. PubMed ID: 10.1016/j.ejphar.2005.12.080, Protective effect of bicyclol on acute hepatic failure induced by lipopolysaccharide and d-galactosamine in mice

BOSTER BIOLOGICAL TECHNOLOGY
3942 B Valley Ave, Pleasanton, CA 94566
888-466-3604 | support@bosterbio.com | www.bosterbio.com

2. PubMed ID: 25691929, Mu L, Jing C, Guo Z. Iran J Basic Med Sci. 2014 Nov;17(11):874-8. Expressions Of Cd11A, Cd11B, And Cd11C Integrin Proteins In Rats With Myocardial Hypertrophy.

Visit bosterbio.com/anti-cd11a-picoband-trade-antibody-a04466-1-boster.html to see all 2 publications.