

Anti-CD11a Picoband Antibody

Catalog # ABO10306

Specification

# Anti-CD11a Picoband Antibody - Product Information

ApplicationWB, IHC-F, FC, ICCPrimary AccessionP20701HostRabbitReactivityHumanClonalityPolyclonalFormatLyophilizedDescriptionRabbit IgG polyclonal antibody for Integrin alpha-L(ITGAL) detection. Tested with WB, IHC-F, ICC, FCM in Human.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

# Anti-CD11a Picoband Antibody - Additional Information

Gene ID 3683

**Other Names** Integrin alpha-L, CD11 antigen-like family member A, Leukocyte adhesion glycoprotein LFA-1 alpha chain, LFA-1A, Leukocyte function-associated molecule 1 alpha chain, CD11a, ITGAL, CD11A

**Application Details** Immunohistochemistry(Frozen Section), 0.5-1  $\mu$ g/ml<br>/ml<br>/br>/munocytochemistry, 0.5-1  $\mu$ g/ml<br>/ml<br>/br>Western blot, 0.1-0.5  $\mu$ g/ml<br>/flow Cytometry, 1-3μg/1x10<sup>6</sup> cells<br>/cells<br>/

**Contents** Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen E.coli-derived human CD11a recombinant protein (Position: F161-L349). Human CD11a shares 73.7% mino acid (aa) sequence identity with mouse CD11a.

**Purification** Immunogen affinity purified.

**Cross Reactivity** No cross reactivity with other proteins.

Storage

At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.



# Anti-CD11a Picoband Antibody - Protein Information

Name ITGAL (<u>HGNC:6148</u>)

Synonyms CD11A

#### Function

Integrin ITGAL/ITGB2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4. Integrin ITGAL/ITGB2 is a receptor for F11R (PubMed:<a href="http://www.uniprot.org/citations/11812992" target="\_blank">11812992</a>, PubMed:<a href="http://www.uniprot.org/citations/15528364" target="\_blank">15528364</a>). Integrin ITGAL/ITGB2 is a receptor for the secreted form of ubiquitin-like protein ISG15; the interaction is mediated by ITGAL (PubMed:<a href="http://www.uniprot.org/citations/29100055" target="\_blank">29100055</a>). Involved in a variety of immune phenomena including leukocyte-endothelial cell interaction, cytotoxic T-cell mediated killing, and antibody dependent killing by granulocytes and monocytes. Contributes to natural killer cell cytotoxicity (PubMed:<a href="http://www.uniprot.org/citations/15356110" target="\_blank">15356110</a>). Involved in leukocyte adhesion and transmigration of leukocytes including T-cells and neutrophils (PubMed:<a href="http://www.uniprot.org/citations/15356110" target="\_blank">11812002</a>

href="http://www.uniprot.org/citations/11812992" target="\_blank">11812992</a>). Acts as a platform at the immunological synapse to translate TCR engagement and density of the ITGAL ligand ICAM1 into graded adhesion (PubMed:<a href="http://www.uniprot.org/citations/38195629" target="\_blank">38195629</a>). Required for generation of common lymphoid progenitor cells in bone marrow, indicating a role in lymphopoiesis (By similarity). Integrin ITGAL/ITGB2 in association with ICAM3, contributes to apoptotic neutrophil phagocytosis by macrophages (PubMed:<a href="http://www.uniprot.org/citations/23775590" target="\_blank">23775590</a>).

### **Cellular Location**

Cell membrane; Single-pass type I membrane protein. Note=Upon antigen recognition by the TCR, is recruited to lipid rafts (PubMed:15684041).

Tissue Location Leukocytes.

# Anti-CD11a Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### Anti-CD11a Picoband Antibody - Images





Figure 1. Western blot analysis of CD11a using anti-CD11a antibody (ABO10306). 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 # ABO10306) at 0.5 μg/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 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 (ABO10306).Overlay histogram showing U937 cells stained with ABO10306 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD11a Antibody (ABO10306,11<sup>1</sup>/4g/1x106 cells) for 30 min at 20ŰC. DyLight?488 conjugated goat anti-rabbit IgG (BA1127, 5-101<sup>1</sup>/4g/1x106 cells) was used as secondary antibody for 30 minutes at 20ŰC. Isotype control antibody (Green line) was rabbit IgG (11<sup>1</sup>/4g/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.