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Anti-CD11a Picoband Antibody

Catalog # ABO10306

Product Information

Application	WB, IHC-F, FC, ICC
Primary Accession	P20701
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit 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.

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
Calculated MW	128770
Application Details	Immunohistochemistry(Frozen Section), 0.5-1 □g/ml Immunocytochemistry, 0.5-1 □g/ml Western blot, 0.1-0.5 □g/ml Flow Cytometry, 1-3 □¼g/1x10^6 cells
Source	Eukaryota
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.

Protein Information

Name	ITGAL (HGNC:6148)
Function	Integrin ITGAL/ITGB2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4 (PubMed:10846180, PubMed:12526797, PubMed:1676048, PubMed:3086451). Integrin ITGAL/ITGB2 is a receptor for F11R (PubMed:11812992, PubMed:15528364). Integrin ITGAL/ITGB2 is a receptor for the secreted form of ubiquitin-like protein ISG15; the interaction is mediated by ITGAL (PubMed:29100055). 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:15356110). Involved in leukocyte adhesion and transmigration of leukocytes including T-cells and neutrophils (PubMed:11812992). Acts as a platform at the immunological synapse to translate TCR engagement and density of the ITGAL ligand ICAM1 into graded adhesion (PubMed:38195629). 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:23775590). Integrins ITGAL:ITGB2 functions as a receptor of the neuron-specific adhesion molecule ICAM5 ensuring neuron cell-leukocyte adhesion (PubMed:10741396). Integrin ITGAL/ITGB2 that functions as a signaling receptor of ICAM2, ensuring leukocyte cell-cell adhesion on resting cells (PubMed:1676048).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Membrane raft. Note=Upon antigen recognition by the TCR, is recruited to lipid rafts (PubMed:15684041).
Tissue Location	Leukocytes.

Images

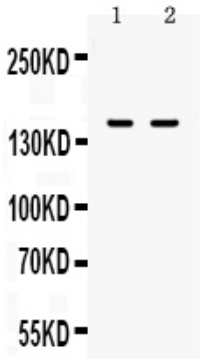


Figure 1. Western blot analysis of CD11a using anti-CD11a antibody (ABO10306). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. lane 1: JURKAT cell lysates,lane 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 □¼g/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.

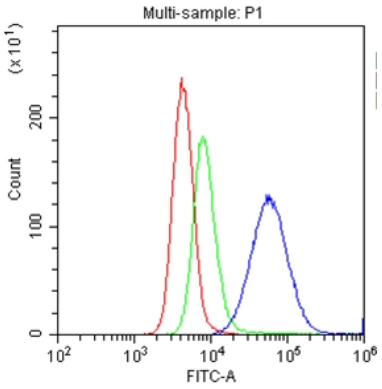


Figure 2. Flow Cytometry analysis of U937 cells using anti-CD11a antibody (ABO10306).Overlay histogram showing U937 cells stained with ABO10306 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-CD11a Antibody (ABO10306,1 □¼g/1x106 cells) for 30 min at 20 □°C. DyLight?488 conjugated goat anti-rabbit IgG (BA1127, 5-10 □¼g/1x106 cells) was used as secondary antibody for 30 minutes at 20 □°C. Isotype control antibody (Green line) was rabbit IgG (1 □¼g/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.