10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CD11a / Integrin alphaL / LFA-1 alpha Chain Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone DF1524]
Catalog # AH11605

Product Information

Application	IF, FC
Primary Accession	P20701
Other Accession	3683, 174103
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2b, kappa
Clone Names	DF1524
Calculated MW	128770

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 Note	IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD11a / Integrin alphaL / LFA-1 alpha Chain Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

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.

Background

Recognizes a protein of 180kDa, identified as CD11a (Leucocyte Workshop IV; Code 1524). CD11a complex with the 2 subunit of the integrin family, CD18, to form the cell surface heterodimer, LFA-1 or CD11a /C18 (aLbL). LFA-1 is expressed on all leukocytes including lymphocytes, monocytes, and granulocytes. It is involved in leukocyte adhesion to its ligands including intercellular adhesion molecule-1 (ICAM-1 or CD54), ICAM-2 (CD102), ICAM-3 (CD50) and Telencephalin (TLN) and play a role in most immune/inflammatory responses. This MAb potently blocks LFA-1 dependent homotypic cell aggregation.

References

Knapp et al. (Eds.), Leukocyte Typing IV, 1989: Sections N1 (pp. 543.551), N1.l (pp. 551553); N1.2 (pp. 553554); N1.3 (pp. 555558); N1.8 (pp. 566570); N1.9 (pp. 570574); N14.4 (pp. 689693). | Petruzzelli L et al. Activation of lymphocyte function-associated molecule-1 (CD11a/CD18) and Mac-1 (CD11b/CD18) mimicked by an antibody directed against CD18. J Immunol 1995, 155(2):854-866. | Edwards CP et al. Mapping the intercellular adhesion molecule-1 and -2 binding site on the inserted domain of leukocyte function-associated antigen-1. J Biol Chem 1998, 273(44):28937-44. | Shang XZ and Issekutz AC. Contribution of CD11a/CD18, CD11b/CD18, ICAM-1 (CD54) and -2 (CD102) to human monocyte migration through endothelium and connective tissue fibroblast barriers. Eur J Immunol 1998, 28(6):1970-1979. | Tian L et al. The neuronal glycoprotein telencephalin is a cellular ligand for the CD11a/CD18 leukocyte integrin. J Immunol 1997, 158(2):928-936

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