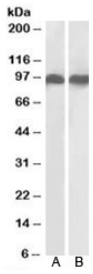
LFA-1 Antibody / CD18 Polyclonal Antibody (R34026)

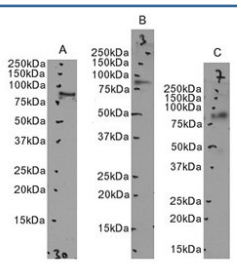
Catalog No.	Formulation	Size
R34026-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

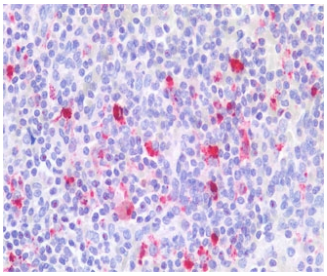
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	3689
Applications	Western blot: 0.3-1ug/ml Immunohistochemistry (FFPE): 5ug/ml ELISA (peptide) LOD: 1:128000
Limitations	This LFA-1 Antibody / CD18 Polyclonal Antibody is available for research use only.



LFA-1 Antibody Western Blot of K562 and U937 Cells. Western blot testing of human K562 (A) and U937 (B) cell lysates with LFA-1 Antibody at 0.3 ug/ml. Both lysates show a strong predominant band at approximately 85-95 kDa, consistent with the expected migration of glycosylated CD18/ITGB2. The similar target-sized signal in both samples demonstrates detection of integrin beta 2 by this CD18 Polyclonal Antibody.



LFA-1 Antibody Western Blot of U937, K562 and MOLT-4 Cells. Western blot testing of human U937 (A), K562 (B), and MOLT-4 (C) cell lysates with LFA-1 Antibody. A predominant band is detected at approximately 85-95 kDa in each lysate, consistent with glycosylated CD18/ITGB2. Signal intensity varies among the three samples, with particularly strong target-sized detection in U937 cells. The results demonstrate recognition of integrin beta 2 in multiple human hematopoietic cell lines by this CD18 Polyclonal Antibody.



LFA-1 Antibody in Human Spleen IHC. Immunohistochemistry staining of FFPE human spleen tissue with LFA-1 Antibody at 5 ug/ml. Heat-induced epitope retrieval was performed by steaming sections in pH 6 citrate buffer, followed by AP-based detection. Distinct red staining highlights scattered CD18-positive cells throughout the splenic lymphoid tissue, with minimal staining in many surrounding cells. This cellular distribution demonstrates detection of the ITGB2-encoded beta 2 integrin subunit by this CD18 Polyclonal Antibody.

Description

LFA-1 Antibody recognizes CD18, the beta 2 integrin subunit encoded by the ITGB2 gene. CD18 associates with CD11a to form lymphocyte function-associated antigen 1 (LFA-1), also designated integrin alpha L beta 2. LFA-1 is a major leukocyte adhesion receptor involved in interactions between immune cells and vascular endothelium, antigen-presenting cells, and other cellular partners.

LFA-1 consists of the CD11a alpha chain and CD18 beta chain. Ligand binding is regulated by conformational changes in the heterodimer, allowing leukocytes to rapidly alter receptor affinity and avidity in response to intracellular signals. Major LFA-1 ligands include members of the intercellular adhesion molecule family, particularly ICAM1. These interactions contribute to firm leukocyte adhesion, transendothelial migration, immune synapse formation, and lymphocyte activation.

CD18 is not unique to LFA-1. The ITGB2-encoded beta chain also associates with CD11b, CD11c, and CD11d to form other members of the beta 2 integrin family. These receptors have overlapping and distinct roles in leukocyte adhesion, migration, phagocytosis, complement recognition, and inflammatory responses. Antibodies directed against CD18 therefore detect the shared beta 2 subunit rather than specifically identifying the CD11a/CD18 LFA-1 heterodimer.

Beta 2 integrins are predominantly expressed by leukocytes and play essential roles in immune cell trafficking and host defense. The importance of CD18 is illustrated by leukocyte adhesion deficiency type I, in which pathogenic ITGB2 variants can reduce or eliminate functional beta 2 integrin expression. Defective CD18-mediated adhesion impairs leukocyte migration from the circulation into tissues and compromises normal inflammatory and immune responses.

The historical LFA-1 terminology remains widely used in studies of leukocyte adhesion and immune cell interactions. When an antibody recognizes CD18, however, interpretation should account for the presence of this beta chain in multiple beta 2 integrin heterodimers rather than attributing all detected CD18 exclusively to LFA-1.

An LFA-1 Antibody directed against the CD18 component can be used to investigate this shared beta 2 integrin subunit, while a CD18 Polyclonal Antibody provides a polyclonal reagent for studies of ITGB2 expression and leukocyte integrin biology.

For a broader CD18-focused reagent, see our CD18 Antibody / ITGB2 Polyclonal Antibody page.

Application Notes

Optimal dilution of the LFA-1 Antibody / CD18 Polyclonal Antibody should be determined by the researcher.

Immunogen

Amino acids ETQEDHNGGQKQLS from the CD18 subunit were used as the immunogen for this LFA-1 antibody.

Storage

Aliquot and store the LFA-1 antibody at -20oC.

Alternate Names

CD18 antibody, ITGB2 antibody, Integrin Beta 2 antibody, LFA-1 Beta Chain antibody, Leukocyte Integrin Beta 2 antibody, Complement Receptor Beta Chain antibody

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