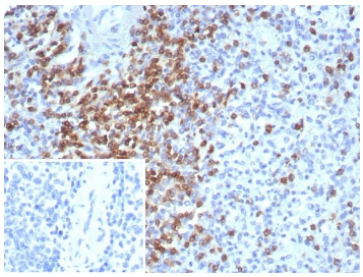
CD2 Antibody for IHC [clone LFA2/8681R] (V4641)

Catalog No.	Formulation	Size
V4641-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4641-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4641SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

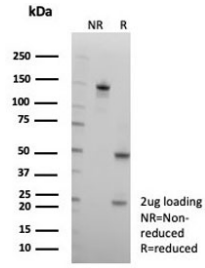
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	LFA2/8681R
Purity	Protein A/G affinity
UniProt	P06729
Localization	Cell surface
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD2 antibody is available for research use only.



Immunohistochemistry analysis of CD2 antibody (clone LFA2/8681R) in human spleen tissue. Formalin-fixed, paraffin-embedded spleen demonstrates strong membranous HRP-DAB brown staining in lymphoid areas, consistent with CD2 expression on mature T lymphocytes within periarteriolar lymphoid sheaths. Surrounding splenic white pulp shows prominent positive T cell populations, while non-lymphoid stromal regions exhibit minimal staining. Hematoxylin counterstain clearly delineates nuclear morphology and splenic architecture. The inset shows PBS used in place of primary antibody as a negative control, confirming absence of non-specific secondary antibody binding. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9.0, for 20 minutes followed by cooling prior to staining.



SDS-PAGE analysis of purified, BSA-free CD2 antibody (clone LFA2/8681R) as confirmation of integrity and purity.

Description

CD2 antibody recognizes CD2 molecule, a type I transmembrane glycoprotein encoded by the CD2 gene and also known as LFA-2 and T cell surface antigen CD2. CD2 is a member of the immunoglobulin superfamily and is expressed predominantly on T lymphocytes and natural killer cells. As an adhesion and co-stimulatory receptor, CD2 plays a central role in T cell activation, immune synapse formation, and cell-cell communication within lymphoid tissues. This antibody is designed for research applications including immunohistochemical evaluation of T cell distribution in formalin-fixed tissue sections.

CD2 contains extracellular immunoglobulin-like domains that mediate interaction with CD58, its primary ligand on antigen-presenting cells and other immune cells. This interaction strengthens T cell adhesion and enhances T cell receptor signaling, contributing to proliferation, cytokine production, and cytotoxic function. The protein includes a single transmembrane domain and a cytoplasmic tail that participates in intracellular signaling cascades. CD2 localizes to the plasma membrane, where it organizes signaling complexes involved in adaptive immune responses.

In normal human tissues, CD2 expression is restricted to thymocytes, peripheral T cells, and natural killer cells. Within lymph node and tonsil, staining is typically observed in interfollicular T cell zones and paracortical regions, while germinal center B cells demonstrate minimal expression. This lineage-restricted pattern makes CD2 an important marker for identifying T cell populations in research applications. CD2 expression is also relevant in studies of T cell leukemias and lymphomas, where membranous localization supports immunophenotypic characterization of lymphoid malignancies.

Clone LFA2/8681R is a recombinant rabbit monoclonal antibody generated by defined sequence expression to promote lot-to-lot consistency and reproducible performance. CD2 antibody for IHC supports investigation of T cell biology, lymphoid tissue organization, and immune signaling pathways in research settings. Its defined specificity and membrane-associated staining profile make it suitable for studying T cell distribution in normal and disease-associated tissues.

Application Notes

Optimal dilution of the CD2 antibody should be determined by the researcher.

Immunogen

A recombinant fragment corresponding to the N-terminal of human CD2 protein was used as the immunogen for the CD2 antibody.

Storage

Aliquot the CD2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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