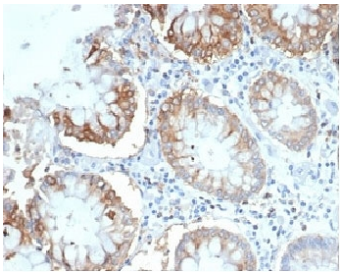
LFA-2 Antibody / Microarray Specificity Validated / CD2 [clone LFA2/7100] (V4059)

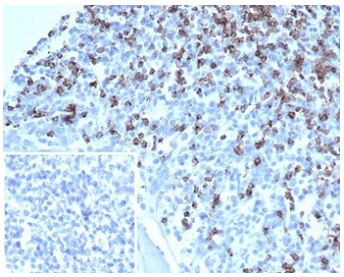
Catalog No.	Formulation	Size
V4059-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4059-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4059SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

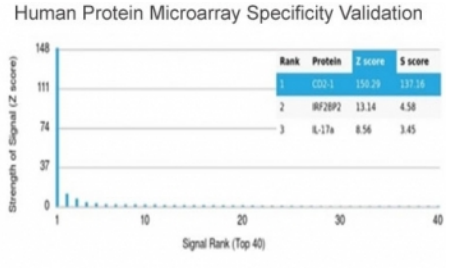
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	LFA2/7100
Purity	Protein A/G affinity
UniProt	P06729
Localization	Cell surface
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This LFA-2 antibody is available for research use only.



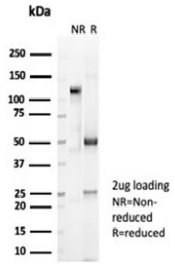
Immunohistochemistry analysis of LFA-2 antibody (clone LFA2/7100) in human colon tissue. Formalin-fixed, paraffin-embedded colon demonstrates membranous HRP-DAB brown staining in scattered lymphoid cells within the lamina propria, consistent with CD2 expression on resident T lymphocytes. Colonic epithelial cells lining the glands are largely negative, highlighting the expected immune cell-restricted expression pattern. Hematoxylin counterstain delineates nuclear morphology and glandular architecture. 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.



IHC staining of FFPE human tonsil tissue with LFA-2 antibody (clone LFA2/7100). Negative control inset: PBS used instead of primary antibody to control for secondary Ab binding. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using LFA-2 antibody (clone LFA2/7100). These results demonstrate the foremost specificity of the LFA2/7100 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free LFA-2 antibody (clone LFA2/7100) as confirmation of integrity and purity.

Description

LFA-2 antibody recognizes CD2 molecule, a type I transmembrane glycoprotein encoded by the CD2 gene and widely 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. LFA-2 antibody supports research applications focused on T cell biology, immune signaling pathways, and lymphoid tissue architecture.

CD2 contains two extracellular immunoglobulin-like domains that mediate binding to CD58, its principal ligand on antigen-presenting cells and other immune cells. This interaction stabilizes T cell adhesion and enhances T cell receptor-mediated signaling, contributing to proliferation, cytokine production, and cytotoxic responses. The protein includes a single transmembrane region and a cytoplasmic tail involved in intracellular signaling cascades. CD2 localizes primarily to the plasma membrane, where it participates in immune synapse organization and adaptive immune responses.

In normal human tissues, CD2 expression is restricted to thymocytes, peripheral T cells, and natural killer cells. Within lymph node, tonsil, and spleen, CD2 staining is typically observed in interfollicular and paracortical T cell zones, while germinal center B cells show minimal expression. This lineage-restricted distribution makes CD2 an important marker for identifying T cell populations in experimental systems. CD2 expression patterns are also relevant in studies of T cell leukemias and lymphomas, where membranous localization assists in immunophenotypic characterization.

Clone LFA2/7100 has been evaluated using a large-scale human protein microarray platform containing thousands of full-length proteins to assess target specificity. Microarray specificity validation supports selective binding to CD2 relative to unrelated proteins and provides an additional layer of confidence in target recognition. LFA-2 antibody can be used to investigate immune adhesion mechanisms, T cell activation pathways, and lymphoid tissue organization in research settings. Its defined specificity and membrane-associated staining profile make it suitable for studies of T cell distribution

and immune system biology.

Application Notes

Optimal dilution of the LFA-2 antibody should be determined by the researcher.

Immunogen

A recombinant fragment from the human CD2 protein was used as the immunogen for the LFA-2 antibody.

Storage

Aliquot the LFA-2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.