

PRODUCT INFORMATION



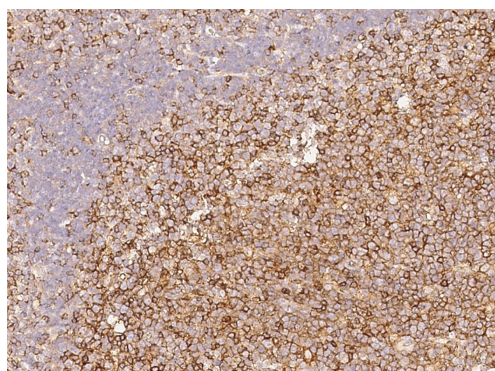
LFA-3/CD58 Rabbit Monoclonal Antibody (Clone 126)

Item No. 38081

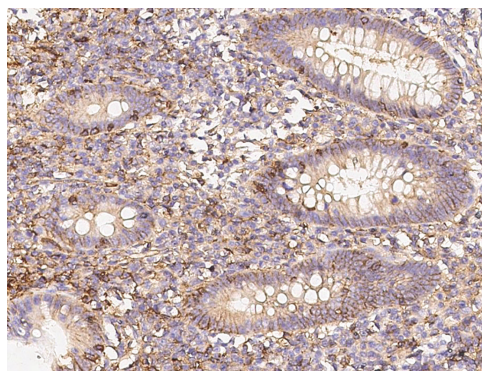
Overview and Properties

Contents:	This vial contains 50 or 100 µl of protein A-purified monoclonal antibody.
Synonyms:	Ag3, Lymphocyte Function Antigen 3, Lymphocyte Function-associated Antigen 3, Surface Glycoprotein LFA-3
Immunogen:	Recombinant human LFA-3/CD58
Cross Reactivity:	(+) CD58
Species Reactivity:	(+) Human; other species not tested
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Clone:	126
Host:	Rabbit
Isotype:	IgG
Application:	Immunohistochemistry paraffin (IHC-P); the recommended starting dilution is 1:100-1:500. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using LFA-3/CD58 Rabbit Monoclonal Antibody (Clone 126) at a dilution of 1:200.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human appendix tissue using LFA-3/CD58 Rabbit Monoclonal Antibody (Clone 126) at a dilution of 1:200.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

Lymphocyte function-associated antigen 3 (LFA-3), also known as CD58, is a membrane-associated glycoprotein.¹ It exists as two isoforms: a type I transmembrane glycoprotein involved in signal transduction and a glycosylphosphatidylinositol-anchored (GPI-anchored) form primarily involved in cell adhesion.^{1,2} A soluble form of LFA-3, sCD58, also exists.¹ Transmembrane LFA-3 is composed of an N-terminal extracellular domain containing N-linked glycosylation sites, a transmembrane domain, and a short C-terminal cytoplasmic tail. The GPI-anchored form is located extracellularly and is linked to the plasma membrane via the C-terminus. LFA-3 is expressed broadly on hematopoietic and non-hematopoietic cells and its ligand, CD2, is expressed on T cells, natural killer (NK) cells, thymocytes, and certain bone marrow cells. LFA-3 acts as a co-stimulatory receptor that, when bound by CD2 on the surface of T cells, is part of the immunological synapse and induces T cell activation. It is also involved in thymocyte development and NK cell communication, as well as other immune and non-immune functions. sCD58 disrupts cell-cell adhesion and has immunosuppressive effects. Various SNPs in *CD58* are associated with an increased risk of multiple sclerosis with one SNP potentially conferring a protective effect.^{3,4} The expression of *CD58* is increased or decreased in various cancers with increased expression positively correlated with overall survival and disease-free survival in patients with acute myeloid leukemia (AML).¹ Cayman's LFA-3/CD58 Rabbit Monoclonal Antibody (Clone 126) can be used for immunohistochemistry paraffin (IHC-P).

References

1. Zhang, Y., Liu, Q., Yang, S., *et al.* CD58 immunobiology at a glance. *Front. Immunol.* **12**, 705260 (2021).
2. Dustin, M.L., Selvaraj, P., Mattaliano, R.J., *et al.* Anchoring mechanisms for LFA-3 cell adhesion glycoprotein at membrane surface. *Nature* **329(6142)**, 846-848 (1987).
3. Hecker, M., Fitzner, B., Blaschke, J., *et al.* Susceptibility variants in the CD58 gene locus point to a role of microRNA-548ac in the pathogenesis of multiple sclerosis. *Mutat. Res. Rev. Mutat. Res.* **763**, 161-167 (2015).
4. De Jager, P.L., Baecher-Allan, C., Maier, L.M., *et al.* The role of the CD58 locus in multiple sclerosis. *Proc. Natl. Acad. Sci. USA* **106(13)**, 5264-5269 (2009).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM