

PRODUCT INFORMATION



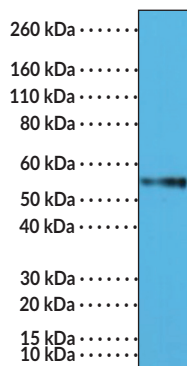
CD4 (N-Term) Rabbit Monoclonal Antibody (Clone RM345)

Item No. 32278

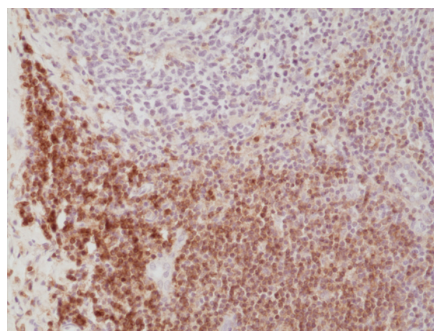
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	Cluster of Differentiation 4, T Cell Surface Antigen T4, T Cell Surface Glycoprotein CD4
Immunogen:	Peptide from the N-terminal region of human CD4
Cross Reactivity:	(+) CD4
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM345
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution for IHC is 1:200-1:500 and 1:2,000-1:5,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of Jurkat cell lysates using CD4 (N-Term) Rabbit Monoclonal Antibody (Clone RM345) at a 1:2,500 dilution.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue using CD4 (N-Term) Rabbit Monoclonal Antibody (Clone RM345) at a 1:500 dilution.

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

CD4 is a type I transmembrane glycoprotein that functions as a T cell receptor (TCR) co-receptor.¹ It exists as a single polypeptide chain composed of four extracellular immunoglobulin-like (Ig-like) domains that interact with MHC class II molecules, a transmembrane domain, and a cytoplasmic tail that associates with the tyrosine kinase LCK and mediates signal transduction to the TCR, which is essential for T cell activation.² It is expressed on the surface of, and used as a marker for, T cells, and its expression is used to characterize the development stage of thymocytes. Upon binding to antigen-displaying MHC class II molecules expressed by antigen-presenting cells (APCs), naïve CD4⁺ T cells differentiate and proliferate in a cytokine-dependent manner into a variety of T helper (Th) cell subsets, including Th1, Th2, and Th17 cells, which enhance and direct innate and adaptive immune cell responses to numerous pathogens and have additional roles in cancer, asthma and allergy, and autoimmunity.^{3,4} CD4 is also the receptor for HIV attachment and entry into cells, resulting in depletion of CD4⁺ cells in patients infected with HIV.^{5,6} Cayman's CD4 (N-Term) Rabbit Monoclonal Antibody (Clone RM345) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

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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