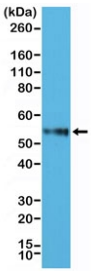
CD4 Antibody for WB / CD4 Western Blot Antibody [clone RM345] (R20367)

Catalog No.	Formulation	Size
R20367-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

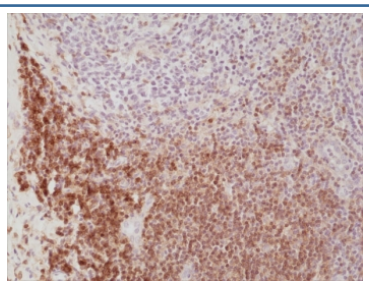
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM345
Purity	Protein A purified from animal origin-free supernatant
UniProt	P01730
Applications	Immunohistochemistry (FFPE): 1:200-1:500 Western blot: 1:2000-1:5000
Limitations	This recombinant CD4 antibody is available for research use only.



CD4 Antibody for WB. Western blot analysis of CD4 antibody in human Jurkat cell lysate. Lane 1: Jurkat cell lysate. A band is detected at approximately 50-55 kDa, consistent with the predicted molecular weight of CD4, with migration reflecting the glycosylated form of this membrane-associated receptor.



IHC staining of FFPE human tonsil tissue with recombinant CD4 antibody at 1:500.

Description

CD4 molecule (CD4) is a type I transmembrane glycoprotein expressed primarily on T helper lymphocytes, where it functions as a co-receptor for antigen recognition through interaction with major histocompatibility complex class II molecules and contributes to T cell receptor signaling. CD4 Antibody for WB is widely used in western blot analysis to detect CD4 protein expression in cell lysates and tissue extracts, providing a reliable method for confirming the presence and relative abundance of this immune receptor at the protein level.

CD4 antibody, also known as T helper cell marker antibody or CD4 surface receptor antibody, enables detection of CD4 protein following denaturing electrophoresis and transfer to membranes. CD4 Antibody for WB supports analysis of protein expression in lymphocyte-derived samples, including primary immune cells and cultured cell lines, where confirmation of CD4 expression is critical for experimental validation. Western blot analysis using CD4 Antibody for WB complements flow cytometry and immunohistochemistry by enabling direct visualization of protein bands and assessment of molecular weight characteristics.

CD4 is synthesized as a glycosylated protein with a predicted molecular weight of approximately 55 kDa based on its amino acid sequence. However, due to N-linked glycosylation, CD4 commonly migrates at a higher apparent molecular weight in SDS-PAGE, typically observed as a band in the range of approximately 55-60 kDa or slightly higher depending on glycosylation state and sample preparation. CD4 Antibody for WB consistently detects this banding pattern, and the presence of a slight upward shift relative to the predicted molecular weight is expected and reflects post-translational modification rather than non-specific signal.

In western blot applications, CD4 Antibody for WB is used to evaluate protein expression levels, compare CD4 abundance across samples, and confirm the presence of CD4 in specific immune cell populations. This is particularly important in studies of T cell activation, immune signaling pathways, and disease models involving altered immune function. The ability of CD4 Antibody for WB to detect glycosylated forms of CD4 supports accurate interpretation of band patterns and ensures that observed signals correspond to biologically relevant protein species.

CD4 is a membrane-associated receptor, and effective detection by western blot depends on appropriate protein extraction methods that preserve membrane protein integrity. CD4 Antibody for WB performs well in lysates prepared under conditions that solubilize membrane proteins, enabling consistent detection of CD4 across experimental systems. A CD4 antibody can be used in western blot to support detection of CD4 protein in research applications, enabling identification of characteristic bands corresponding to this glycoprotein and supporting studies of immune cell biology and receptor expression.

A full range of CD4 antibody reagents for immunohistochemistry, western blot, and flow cytometry is available on our CD4 Antibody collection page.

Application Notes

The stated application concentrations are suggested starting points. Titration of the CD4 Antibody for WB / CD4 Western Blot Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide corresponding to the N-terminus of human CD4 was used as the immunogen for the CD4 Antibody for WB / CD4 Western Blot Antibody.

Storage

Store the recombinant CD4 antibody at -20oC.

Alternate Names

CD4 western blot antibody, CD4 WB antibody, CD4 protein detection antibody, CD4 immunoblot antibody

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