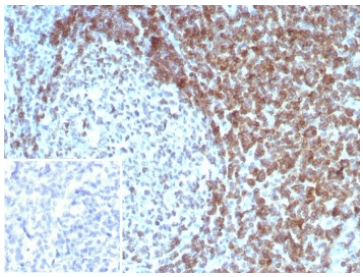
CD3 delta Antibody [clone CD3D/8898] (V5417)

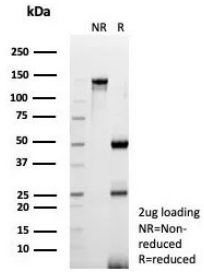
Catalog No.	Formulation	Size
V5417-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5417-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5417SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	CD3D/8898
Purity	Protein A/G affinity
UniProt	P04234
Localization	Membrane
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This CD3 delta antibody is available for research use only.



Immunohistochemistry analysis of CD3 delta antibody (clone CD3D/8898) in human tonsil tissue. Formalin-fixed, paraffin-embedded tonsil demonstrates strong membranous HRP-DAB brown staining in interfollicular T lymphocytes, consistent with CD3 complex expression in mature T cells. Germinal center B cell regions show minimal staining, highlighting the expected T cell-restricted distribution. Hematoxylin counterstain delineates nuclear morphology and tonsillar 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 CD3 delta antibody (clone CD3D/8898) as confirmation of integrity and purity.

Description

CD3 delta antibody recognizes CD3 delta chain, a type I transmembrane protein encoded by the CD3D gene and commonly referred to as T cell surface glycoprotein CD3 delta. CD3 delta is a critical component of the CD3 complex, which associates with the T cell receptor to form the TCR-CD3 signaling complex. This multi-subunit receptor system is essential for antigen recognition and T cell activation. CD3 delta antibody supports research applications focused on T cell development, immune signaling, and lymphoid tissue characterization.

CD3 delta is one of the invariant chains that pair with CD3 gamma, CD3 epsilon, and CD3 zeta to assemble the functional TCR-CD3 complex at the plasma membrane. Upon antigen engagement, the CD3 complex transduces activation signals through immunoreceptor tyrosine-based activation motifs located in the cytoplasmic domains of its subunits. These signaling events initiate downstream pathways that regulate T cell proliferation, differentiation, and cytokine production. CD3 delta localizes predominantly to the plasma membrane in mature T cells, reflecting its structural and signaling role within the receptor complex.

In normal human tissues, CD3 delta expression is restricted to T lymphocytes throughout thymus, lymph node, spleen, tonsil, and peripheral blood. Within lymphoid organs, CD3 staining highlights T cell zones such as the paracortex of lymph nodes and periarteriolar lymphoid sheaths of spleen. B cell follicles and non-lymphoid tissues typically lack CD3 expression. This lineage specificity makes CD3 delta antibody a valuable marker for identifying T cell populations in research settings and for studying T cell distribution in normal and disease-associated tissues.

Alterations in CD3 complex expression are relevant in studies of T cell immunodeficiencies and T cell leukemias or lymphomas, where changes in surface receptor composition can affect signaling capacity. Clone CD3D/8898 is a monoclonal antibody generated to recognize CD3 delta with defined specificity. CD3 delta antibody can be used to investigate T cell receptor signaling pathways, lymphoid architecture, and immune system development in experimental models. Its defined target recognition supports research into adaptive immune responses and T cell-mediated disease processes.

Application Notes

Optimal dilution of the CD3 delta antibody should be determined by the researcher.

Immunogen

A recombinant fragment (within amino acids 1-171) of human CD3D protein was used as the immunogen for the CD3 delta antibody.

Storage

Aliquot the CD3 delta antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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