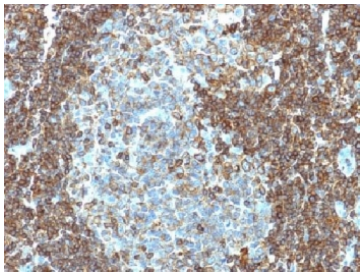
CD3e Antibody Clone PC3/188A / CD3 Epsilon Monoclonal Antibody / Cytoplasmic domain [clone PC3/188A] (V3462)

Catalog No.	Formulation	Size
V3462-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3462-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3462SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

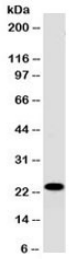
Citations (23)

Bulk quote request

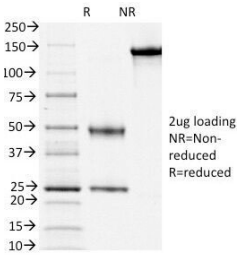
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	PC3/188A
Purity	Protein G affinity chromatography
UniProt	P07766
Localization	Cell surface and cytoplasmic
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunofluorescence: 1-2ug/ml Western blot: 1-2ug/ml for 60 min at RT
Limitations	This CD3e antibody is available for research use only.



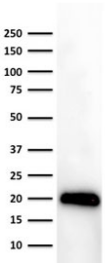
CD3e Antibody Clone PC3/188A. Immunohistochemistry analysis of CD3 Epsilon / CD3E antibody in human tonsil tissue using CD3e Antibody Clone PC3/188A / CD3 Epsilon Monoclonal Antibody. Strong HRP-DAB brown membranous and cytoplasmic staining is observed in T lymphocytes within interfollicular and paracortical regions, consistent with T-cell zone distribution, while surrounding non-lymphoid cells show minimal background. The staining highlights dense T-cell populations within lymphoid architecture and supports identification of CD3-positive immune cells in tissue sections. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 minutes prior to staining.



CD3e Antibody Clone PC3/188A. Western blot analysis of CD3 Epsilon / CD3E antibody in human Jurkat cell lysate using CD3e Antibody Clone PC3/188A / CD3 Epsilon Monoclonal Antibody. Lane 1: human Jurkat cell lysate. A band is detected at approximately 23 kDa, consistent with the predicted molecular weight of CD3 epsilon. The clear, well-defined band with minimal background supports specific detection of CD3 epsilon and reliable performance of clone PC3/188A in western blot analysis.



SDS-PAGE Analysis of Purified, BSA-Free CD3e Antibody (clone PC3/188A). Confirmation of Integrity and Purity of the Antibody.



Western blot testing of human thymus lysate with CD3e antibody (clone PC3/188A). Expected molecular weight ~23 kDa.

Description

CD3 epsilon (CD3E) is a transmembrane signaling component of the T-cell receptor (TCR) complex that is consistently expressed on T lymphocytes and is essential for antigen recognition and downstream signaling. CD3e Antibody Clone PC3/188A / CD3 Epsilon Monoclonal Antibody enables detection of CD3 Epsilon / CD3E and is widely used for identifying T-cell populations in immunological research. CD3e antibody, also known as CD3 epsilon antibody or CD3E antibody, is broadly recognized as a pan-T cell marker antibody and plays a central role in studies of adaptive immunity.

CD3 epsilon functions as part of the CD3 signaling complex together with CD3 gamma, CD3 delta, and CD3 zeta chains, forming a receptor system that associates with the TCR alpha-beta or gamma-delta heterodimer at the cell surface. Upon antigen engagement, this complex initiates intracellular signaling cascades that regulate T-cell activation, proliferation, and differentiation. Because of this central role in T-cell biology, CD3e antibody reagents are widely used to study immune signaling and lymphocyte function.

CD3e Antibody Clone PC3/188A is uniquely positioned by its recognition of an epitope within the cytoplasmic domain of CD3 epsilon, supporting detection of intracellular regions of the TCR complex. This distinguishes it from antibodies that preferentially recognize extracellular or luminal domains, providing a complementary approach for detecting CD3 in permeabilized cells or intracellular-focused assays. As a CD3 cytoplasmic domain antibody, clone PC3/188A enables targeting of intracellular CD3 epsilon epitopes that are directly involved in signal transduction processes.

The cytoplasmic domain of CD3 epsilon contains signaling motifs that are critical for TCR-mediated activation, making it an important region for studying intracellular signaling dynamics and receptor function. By recognizing this intracellular domain, CD3e Antibody Clone PC3/188A supports applications where detection of internalized or intracellular CD3 components is required. This can be particularly useful in experimental systems involving receptor internalization, activation-induced redistribution, or permeabilized cell analysis.

In experimental workflows, CD3e antibody reagents are used to identify T-cell populations across a variety of sample types, including blood-derived cells, lymphoid tissues, and cultured systems. Clone PC3/188A contributes to these applications by providing consistent detection of CD3 epsilon while offering a distinct epitope targeting strategy. The ability to pair intracellular domain-recognizing antibodies with extracellular-targeting clones further supports comprehensive analysis of CD3 expression and localization.

CD3e Antibody Clone PC3/188A is also supported by a substantial body of peer-reviewed literature, with approximately ninety publications describing its use. This level of literature representation provides a strong foundation for its use while maintaining differentiation from more heavily utilized clones. Researchers seeking a well-supported antibody with a distinct epitope profile often select PC3/188A for this reason.

As a monoclonal antibody, clone PC3/188A provides consistent epitope recognition and reproducible performance across experiments. CD3e Antibody Clone PC3/188A serves as a reliable tool for detecting CD3 epsilon, with the added advantage of cytoplasmic domain targeting, supporting studies of T-cell identification, intracellular signaling, and immune profiling.

A full range of CD3e antibody reagents for immunohistochemistry, western blot, and flow cytometry is available on our CD3e Antibody collection page.

Application Notes

Optimal dilution of the CD3e Antibody Clone PC3/188A / CD3 Epsilon Monoclonal Antibody should be determined by the researcher.

Immunogen

Amino acids 156-168 (cytoplasmic domain) from human CD3 epsilon chain were used as the immunogen for the CD3e Antibody Clone PC3/188A / CD3 Epsilon Monoclonal Antibody.

Storage

Store the CD3e antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD3E antibody, CD3 epsilon PC3/188A antibody, CD3 cytoplasmic domain antibody, CD3 intracellular domain antibody, CD3 antigen epsilon chain antibody

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