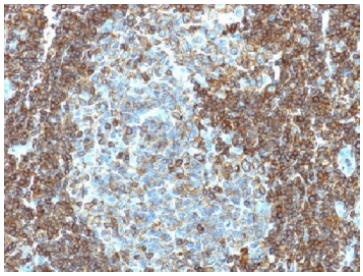
CD3e Antibody / CD3 epsilon / Cytoplasmic domain [clone PC3/188A] (V3462)

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

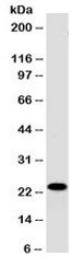
Citations (23)

Bulk quote request

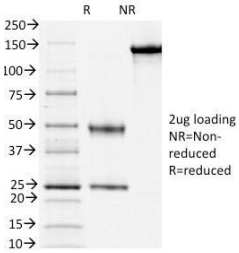
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	PC3/188A
Purity	Protein G affinity chromatography
UniProt	P07766
Localization	Cell surface and cytoplasmic
Applications	Flow Cytometry : 0.5-1ug/10^6 cells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



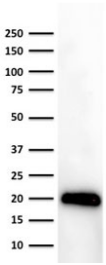
IHC testing of human tonsil tissue with CD3e antibody (clone PC3/188A). Required HIER: boil tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min.



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



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

CD3e antibody is a standard reagent for examining the epsilon chain of the T cell receptor CD3 complex. CD3e is one of several signaling subunits that assemble with the T cell receptor to mediate antigen recognition and immune activation. This protein is expressed on all mature T lymphocytes and is essential for coupling extracellular antigen engagement to intracellular signaling pathways. Because of its central role in adaptive immunity, CD3e is extensively studied in both basic immunology and clinical research.

Structurally, CD3e contains an extracellular domain, a transmembrane region, and a cytoplasmic tail with an immunoreceptor tyrosine based activation motif. When the T cell receptor binds peptide MHC complexes, CD3e is phosphorylated at this motif, triggering downstream cascades. These events activate transcription factors, induce cytokine production, and promote T cell proliferation. This makes CD3e indispensable for effective immune responses.

The CD3e antibody clone PC3/188A is known for its reliable specificity and reproducibility. Clone PC3/188A has been employed to study thymocyte development, T cell activation, and immune cell signaling. Its consistent detection of CD3e ensures dependable results in both experimental and diagnostic contexts. Researchers value this antibody for identifying T cells in complex tissues and for monitoring their activation status.

Because CD3e is expressed on virtually all T cells, it is commonly used as a lineage marker. In pathology, CD3e detection helps characterize lymphomas and leukemias, while in basic science it supports studies of infection, tolerance, and autoimmunity. Research using clone PC3/188A has advanced understanding of how T cells develop and respond to antigenic stimulation, reinforcing its place as a key immunological reagent.

NSJ Bioreagents provides this CD3e antibody to support investigations into T cell signaling and immune regulation. Scientists may also encounter CD3e described as CD3 epsilon antibody, T cell surface glycoprotein CD3e chain antibody, TCRE antibody, and cluster of differentiation 3 epsilon antibody. These alternate names reflect the multiple ways this essential protein is referenced in research.

Application Notes

Optimal dilution of the CD3e 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.

Storage

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