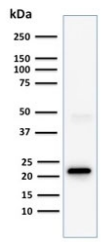
CD3e Antibody [clone C3e/1308] (V3287)

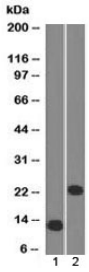
Catalog No.	Formulation	Size
V3287-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3287-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3287SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

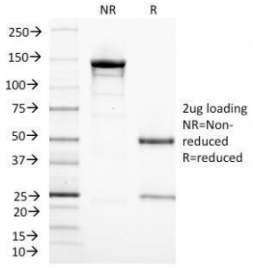
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	C3e/1308
Purity	Protein G affinity chromatography
UniProt	P07766
Localization	Cell surface and cytoplasmic
Applications	Western Blot : 1-2ug/ml for 60 min at RT Flow Cytometry : 1-2ug/10^6 cells
Limitations	This CD3e antibody is available for research use only.



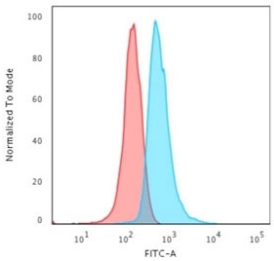
Western blot testing of human Jurkat cell lysate with CD3e antibody (clone C3e/1308). Predicted molecular weight ~23 kDa.



Western blot testing of 1) a partial recombinant protein and 2) human Jurkat cell lysate with CD3e antibody (clone C3e/1308). Predicted molecular weight ~23 kDa.



SDS-PAGE Analysis of Purified, BSA-Free CD3e Antibody (clone C3e/1308). Confirmation of Integrity and Purity of the Antibody.



Flow cytometry testing of human Jurkat cells with CD3e antibody (clone C3e/1308); Red=isotype control, Blue= CD3e antibody.

Description

CD3e antibody is an essential reagent for exploring T cell biology. CD3e is one of the key components of the T cell receptor complex, where it partners with CD3ÃŽÂ³, CD3ÃŽÂ´, and CD3ÃŽÂ¶ chains to transmit activation signals. This complex is present on all mature T lymphocytes and is central to adaptive immune responses. The protein contributes to antigen recognition by coupling the extracellular binding of peptide MHC complexes to intracellular signaling cascades that guide T cell function.

Structurally, CD3e contains an extracellular immunoglobulin like domain, a transmembrane region, and a cytoplasmic signaling motif. When the T cell receptor engages with antigen, CD3e undergoes phosphorylation at its immunoreceptor tyrosine based activation motif, initiating downstream signaling. These events lead to calcium mobilization, activation of transcription factors, and induction of genes necessary for T cell proliferation and cytokine production.

The CD3e antibody clone C3e/1308 provides specific detection of this important receptor subunit. Clone C3e/1308 has been widely applied to characterize T lymphocyte subsets, to study T cell development in the thymus, and to monitor immune activation in disease models. Its consistent recognition of CD3e makes it a dependable tool for examining T cell mediated responses across a variety of experimental systems.

Because CD3e is expressed on virtually all mature T cells, it is frequently used as a marker for identifying lymphocytes in tissue sections and blood samples. Researchers studying infection, autoimmunity, and cancer immunology rely on CD3e detection to monitor T cell dynamics. The protein also plays a role in clinical immunology, where alterations in CD3 expression can indicate immunodeficiency or lymphoproliferative disorders.

NSJ Bioreagents offers this CD3e antibody to support research into immune signaling and T cell biology. Alternate designations for this target include CD3 epsilon antibody, T cell surface glycoprotein CD3e chain antibody, TCRE antibody, and cluster of differentiation 3 epsilon antibody. These names reflect the broad contexts in which scientists investigate this fundamental immune protein.

Application Notes

Optimal dilution of the CD3e antibody should be determined by the researcher.

Immunogen

Amino acids 23-119 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).