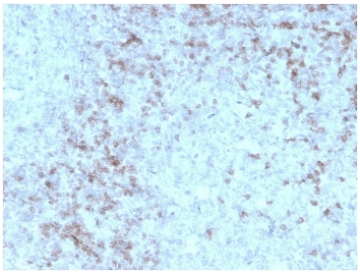
Recombinant CD3e Antibody [clone rC3e/1931] (V8202)

Catalog No.	Formulation	Size
V8202-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8202-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8202SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

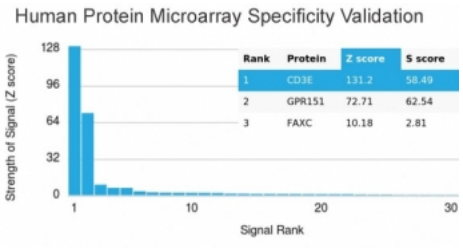
Recombinant MOUSE MONOCLONAL

Bulk quote request

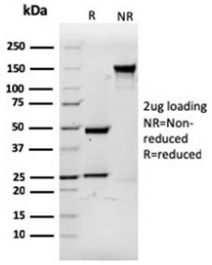
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rC3e/1931
Purity	Protein G affinity chromatography
UniProt	P07766
Localization	Cell surface, cytoplasmic
Applications	ELISA : order BSA-free format for coating Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This recombinant CD3e antibody is available for research use only.



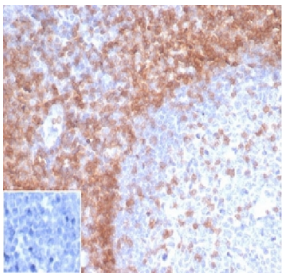
IHC staining of FFPE human spleen with recombinant CD3e antibody (clone rC3e/1931). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using recombinant CD3e antibody (clone rC3e/1931). These results demonstrate the foremost specificity of the rC3e/1931 mAb.
Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free recombinant CD3e antibody (clone rC3e/1931) as confirmation of integrity and purity.



IHC staining of FFPE human tonsil with recombinant CD3e antibody (clone rC3e/1931). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing. Negative control inset: PBS used instead of primary antibody to control for secondary Ab binding.

Description

Recombinant CD3e antibody detects CD3 epsilon, a critical component of the T-cell receptor-CD3 complex encoded by the CD3E gene. CD3 epsilon pairs with other CD3 chains (gamma, delta, zeta) and T-cell receptor alpha and beta chains to mediate antigen recognition and signal transduction. Because of its central role in T-cell activation, Recombinant CD3e antibody is indispensable in immunology, oncology, and translational research.

CD3 epsilon is a type I transmembrane protein with extracellular immunoglobulin-like domains and a cytoplasmic tail containing immunoreceptor tyrosine-based activation motifs (ITAMs). Engagement of the T-cell receptor by antigen-MHC complexes leads to phosphorylation of CD3 ITAMs, recruitment of kinases, and activation of downstream pathways including NF-ÃŽÂºB, NFAT, and MAPK. This signaling cascade drives proliferation, differentiation, and effector function of T cells, linking antigen recognition to adaptive immunity.

The Recombinant CD3e antibody clone rC3e/1931 provides reliable and consistent detection of CD3 epsilon. Recombinant production ensures lot-to-lot uniformity, critical for studies that require reproducibility. Clone rC3e/1931 has been employed in peer-reviewed studies of T-cell activation, thymocyte development, and cancer immunotherapy. Its versatility supports applications in flow cytometry, immunohistochemistry, and functional assays probing T-cell signaling.

Research using clone rC3e/1931 has shown how CD3 epsilon expression defines T-cell populations in blood and tissues. In oncology, this antibody supports analysis of tumor-infiltrating lymphocytes and facilitates development of T-cell redirecting therapies, such as bispecific antibodies and CAR T cells. In basic immunology, detection of CD3 epsilon provides insights into thymic selection, autoimmunity, and infection control. The antibodyÃ¢Â€Â™s specificity and reproducibility make it central to both laboratory and translational applications.

NSJ Bioreagents supplies this Recombinant CD3e antibody to support immunology, oncology, and therapeutic

development. Alternate names include CD3 epsilon chain antibody, T-cell surface glycoprotein CD3e antibody, T-cell receptor-associated protein epsilon antibody, TCR-CD3 complex antibody, and T-cell activation marker antibody.

Application Notes

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

Immunogen

A recombinant human partial protein (amino acids 23-119) was used as the immunogen for the recombinant CD3e antibody.

Storage

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