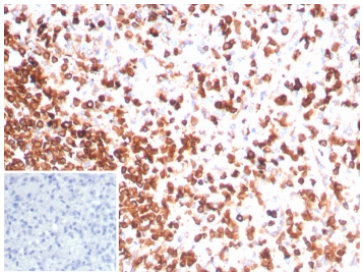
CD3e Antibody / Pan T Cell Lineage Marker Antibody [clone rC3e/8881] (V4204)

Catalog No.	Formulation	Size
V4204-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4204-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4204SAF-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
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2b, kappa
Clone Name	rC3e/8881
Purity	Protein A/G affinity
UniProt	P07766
Localization	Cell surface, Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This recombinant CD3e antibody is available for research use only.



CD3e Antibody. Immunohistochemistry analysis of CD3 Epsilon / CD3E antibody in FFPE human spleen tissue using CD3e Antibody / Pan T Cell Lineage Marker Antibody with Clone rC3e/8881. Strong HRP-DAB brown membranous and cytoplasmic staining is observed in T lymphocytes distributed throughout the white pulp and periarteriolar lymphoid sheath regions, consistent with T-cell lineage localization, while surrounding non-lymphoid cells show minimal background. The inset shows the negative control with PBS used in place of the primary antibody, demonstrating absence of non-specific staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 minutes followed by cooling prior to antibody incubation.

Description

CD3 epsilon (CD3E) is a membrane-associated protein that forms a core component of the T-cell receptor (TCR) complex and is consistently expressed across T lymphocyte populations. CD3e Antibody / Pan T Cell Lineage Marker Antibody enables detection of CD3 Epsilon / CD3E and is widely used to define T-cell identity within complex biological systems. CD3e antibody, also known as CD3 epsilon antibody or CD3E antibody, is commonly referred to as a pan T cell lineage marker antibody due to its stable and lineage-restricted expression in T cells.

This CD3e Antibody is uniquely positioned for identifying and defining T-cell lineage across diverse sample types. CD3 epsilon forms part of the CD3 complex together with CD3 gamma, CD3 delta, and CD3 zeta chains, which associate with the TCR and are required for T-cell development and function. Expression of CD3 epsilon reflects commitment to the T-cell lineage and is maintained throughout T-cell maturation, making it a reliable marker for identifying both developing and mature T cells.

As a pan T cell lineage marker antibody, CD3e antibody reagents enable clear discrimination of T lymphocytes from other immune cell populations, including B cells, NK cells, and myeloid cells. This distinction is critical in studies involving heterogeneous cell mixtures, where accurate identification of T-cell populations underpins downstream analysis of immune composition and function. CD3e antibody provides a robust and widely accepted method for defining T-cell identity in these contexts.

CD3 epsilon expression is maintained across multiple stages of T-cell development, including thymocyte maturation and peripheral T-cell populations. This consistent expression pattern supports the use of CD3e Antibody / Pan T Cell Lineage Marker Antibody in developmental studies, lineage tracing, and analysis of immune system organization. Detection of CD3 epsilon provides a stable marker for following T-cell populations across biological contexts.

In tissue-based studies, CD3e antibody reagents enable visualization of T-cell distribution within lymphoid organs and peripheral tissues. Identification of CD3-positive cells supports analysis of immune cell localization, tissue residency, and patterns of immune infiltration. As a pan T cell lineage marker antibody, CD3e antibody is particularly useful for mapping T-cell presence within complex tissue environments.

In cell-based assays, CD3e antibody reagents are used to quantify T-cell populations and establish baseline immune composition. This supports a wide range of research applications, including studies of immune homeostasis, disease-associated changes in lymphocyte populations, and responses to experimental manipulation.

CD3e Antibody / Pan T Cell Lineage Marker Antibody provides a reliable and lineage-defining tool for identifying T-cell populations, supporting research focused on immune system organization, cellular identity, and lymphocyte composition.

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 / Pan T Cell Lineage Marker Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 1-200) from the human protein was used as the immunogen for the CD3e Antibody / Pan T Cell Lineage Marker Antibody.

Storage

Aliquot the recombinant CD3e antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CD3E antibody, CD3 pan T cell marker antibody, CD3 lineage marker antibody, CD3 T lymphocyte marker antibody, CD3 immune cell marker antibody