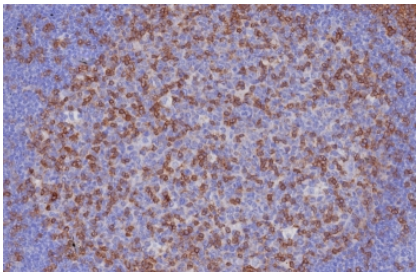
CD3e Antibody / T Cell Activation Marker Antibody [clone C3e/8116R] (V4212)

Catalog No.	Formulation	Size
V4212-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4212-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4212SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

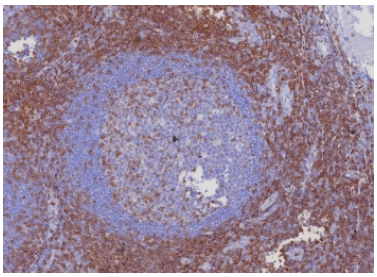
Recombinant RABBIT MONOCLONAL

Bulk quote request

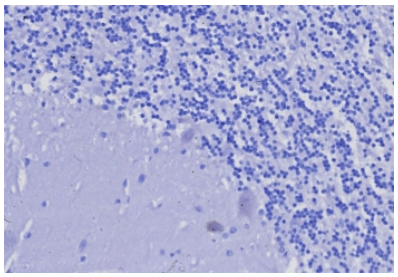
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	C3e/8116R
Purity	Protein A/G affinity
UniProt	P07766
Localization	Cell surface, Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This CD3e antibody is available for research use only.



CD3e Antibody. Immunohistochemistry analysis of CD3 Epsilon / CD3E antibody in FFPE human tonsil tissue using CD3e Antibody / T Cell Activation Marker Antibody with Clone C3e/8116R. Strong HRP-DAB brown membranous and cytoplasmic staining is observed in T lymphocytes within interfollicular and paracortical regions, consistent with activated T-cell distribution, while surrounding non-lymphoid cells show minimal background. The staining highlights CD3 epsilon as a key mediator of T cell activation within lymphoid tissue architecture. 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.



CD3e Antibody. Immunohistochemistry analysis of CD3 Epsilon / CD3E antibody in FFPE human tonsil tissue using CD3e Antibody / T Cell Activation Marker Antibody with Clone C3e/8116R. Strong HRP-DAB brown membranous and cytoplasmic staining is observed in T lymphocytes surrounding and within interfollicular regions adjacent to germinal centers, consistent with activated T-cell distribution, while germinal center B-cell regions show reduced staining. The staining highlights CD3 epsilon as a key mediator of T cell activation within lymphoid architecture. 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.



Negative control: IHC testing of FFPE human brain tissue with CD3e antibody (clone C3e/8116R) at 2ug/ml. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

CD3 epsilon (CD3E) is a critical component of the T-cell receptor (TCR) complex that plays a central role in antigen recognition and activation of T lymphocytes. CD3e Antibody / T Cell Activation Marker Antibody enables detection of CD3 Epsilon / CD3E and is widely used to study activation-dependent processes in T cells. CD3e antibody, also known as CD3 epsilon antibody or CD3E antibody, is frequently referred to as a T cell activation marker antibody due to its direct involvement in initiating intracellular signaling following antigen engagement.

This CD3e Antibody is uniquely positioned for investigating functional activation states of T cells. CD3 epsilon forms part of the CD3 signaling complex together with CD3 gamma, CD3 delta, and CD3 zeta chains, which associate with the TCR. Engagement of the TCR leads to activation of signaling pathways that drive T-cell proliferation, differentiation, and effector function. Because CD3 epsilon is directly involved in these activation processes, its detection provides insight into the functional state of T cells.

As a T cell activation marker antibody, CD3e antibody reagents enable analysis of activation-related changes in T-cell populations. Detection of CD3 epsilon supports studies of receptor engagement, signaling pathway activation, and downstream functional responses such as cytokine production and clonal expansion. This makes CD3e antibody particularly valuable in experimental systems designed to evaluate immune activation and response dynamics.

T-cell activation is a tightly regulated process that determines the outcome of immune responses. CD3 epsilon plays a central role in transmitting activation signals from the TCR to intracellular signaling networks. CD3e Antibody / T Cell Activation Marker Antibody supports investigation of these processes by enabling consistent detection of CD3 epsilon across activated and resting T-cell populations.

In experimental applications, CD3e antibody reagents are used to study activation dynamics in cultured T cells, primary lymphocytes, and tissue-derived immune cells. The ability to detect CD3 epsilon enables researchers to monitor changes in activation status and to evaluate how experimental conditions influence T-cell responses. This supports studies of immune regulation, signaling modulation, and functional outcomes.

CD3e antibody can also be used in combination with additional activation markers to provide a more comprehensive view of T-cell functional states. Integration of CD3 detection with other readouts enables more detailed characterization of immune activation and response profiles.

CD3e Antibody / T Cell Activation Marker Antibody provides a focused and reliable tool for studying T-cell activation,

supporting research centered on immune response, signaling pathways, and functional immunology.

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

Immunogen

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

Storage

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

Alternate Names

CD3E antibody, CD3 activation marker antibody, CD3 T cell activation antibody, CD3 immune activation marker antibody, CD3 signaling activation antibody