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CD3e (T-Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone CRIS-7]
Catalog # AH12595

Specification

CD3e (T-Cell Marker) Antibody - With BSA and Azide - Product Information

Application	**IF, FC**
Primary Accession	P07766
Other Accession	916, 3003
Reactivity	**Human, Monkey**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG2a, kappa**
Calculated MW	**20kDa KDa**

CD3e (T-Cell Marker) Antibody - With BSA and Azide - Additional Information

Gene ID 916

Other Names
T-cell surface glycoprotein CD3 epsilon chain, T-cell surface antigen T3/Leu-4 epsilon chain, CD3e, CD3E, T3E

Application Note
IF~~1:50~200<br \>FC~~1:10~50

Storage
Store at 2 to 8°C.Antibody is stable for 24 months.

Precautions
CD3e (T-Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

CD3e (T-Cell Marker) Antibody - With BSA and Azide - Protein Information

Name CD3E

Synonyms T3E

Function
Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR- mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD3Z. All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain. Upon TCR engagement, these motifs become phosphorylated by Src family protein tyrosine kinases LCK and FYN, resulting in the activation of downstream signaling pathways (PubMed:<a href="http://www.uniprot.org/citations/2470098"

target="_blank">2470098). In addition of this role of signal transduction in T-cell activation, CD3E plays an essential role in correct T-cell development. Initiates the TCR-CD3 complex assembly by forming the two heterodimers CD3D/CD3E and CD3G/CD3E. Also participates in internalization and cell surface down- regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (PubMed:10384095, PubMed:26507128). In addition to its role as a TCR coreceptor, it serves as a receptor for ITPRIPL1. Ligand recognition inhibits T-cell activation by promoting interaction with NCK1, which prevents CD3E-ZAP70 interaction and blocks the ERK- NFkB signaling cascade and calcium influx (PubMed:38614099).

Cellular Location
Cell membrane; Single-pass type I membrane protein

CD3e (T-Cell Marker) Antibody - With BSA and Azide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CD3e (T-Cell Marker) Antibody - With BSA and Azide - Images

CD3e (T-Cell Marker) Antibody - With BSA and Azide - Background

Recognizes the -chain of CD3 (Workshop V; Code: CD03.09), which consists of five different polypeptide chains (designated as γ, δ, ε, ζ, and η) with MW ranging from 16-28kDa. The CD3 complex is closely associated at the lymphocyte cell surface with the T cell antigen receptor (TCR). Reportedly, CD3 complex is involved in signal transduction to the T cell interior following antigen recognition. The CD3 antigen is first detectable in early thymocytes and probably represents one of the earliest signs of commitment to the T cell lineage. In cortical thymocytes, CD3 is predominantly intra-cytoplasmic. However, in medullary thymocytes, it appears on the T cell surface. CD3 antigen is a highly specific marker for T cells, and is present in majority of T cell neoplasms.

CD3e (T-Cell Marker) Antibody - With BSA and Azide - References

McMichael AJ et al. (eds) Leukocyte Typing III, Oxford University Press, Oxford, 1987. Knapp W et al. (eds) Leukocyte Typing IV, p245 and 1059, Oxford University Press, Oxford, 1989 | Schlossman S et al. (eds) Leukocyte Typing V. Oxford University Press, Oxford, 1995. | Alberola-Ila J et al. Stimulation through the TCR/CD3 complex up-regulates the CD2 surface expression on human T lymphocytes. J Immunol 1991, 146(4):108