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CD3 (T-Cell Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone RIV9]
Catalog # AH12599

Specification

CD3 (T-Cell Marker) Antibody - With BSA and Azide - Product Information

Application	**,3,4,**
Primary Accession	P07766
Other Accession	916, 3003
Reactivity	**Human, Mouse, Rat**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse / IgG3, kappa**
Calculated MW	**20kDa KDa**

CD3 (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

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

Precautions
CD3 (T-Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

CD3 (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: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. Participates also in internalization and cell surface down- regulation of TCR-CD3 complexes via endocytosis sequences

present in CD3E cytosolic region (PubMed:10384095, PubMed:26507128).

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

CD3 (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

CD3 (T-Cell Marker) Antibody - With BSA and Azide - Images

CD3 (T-Cell Marker) Antibody - With BSA and Azide - Background

Reacts with five invariable CD3 chains (designated as and) with molecular weight ranging from 16-28kDa. It is found on all mature T-lymphocytes, NK, T-cells, and some thymocytes. CD3, also known as T3, is a member of the immunoglobulin superfamily that plays a role in antigen recognition, signal transduction, and T cell activation. It is expressed, typically at high levels, on peripheral T cells and majority of T cell neoplasms. Thymocytes express CD3 at different level on the cell surface in the course of differentiation and, in cortical thymus, CD3 is predominantly Intracytoplasmic. This MAb is particularly useful for induction of T cell activation in vitro and in vivo due to its unusual IgG3 isotype.

CD3 (T-Cell Marker) Antibody - With BSA and Azide - References

Leerling MF et al. Quality control of anti human CD3 and CD4 monoclonal antibodies. Dev Biol Stand 1990, 71:191-200 | Vaessen LM et al. RIV-9: a mouse IgG3 anti-human CD3 monoclonal antibody with strong antigen modulating and T cell eliminating properties. Transplant Proc 1989, 21:1026-7 | Jiskoot W et al. Purification and stabilisation of a poorly soluble mouse IgG3 monoclonal antibody. J Immunol Methods 1991, 138(2):181-189 | Ceuppens JL and Van Vaeck F. Human T cell activation induced by a monoclonal mouse IgG3 anti-CD3 antibody (RIV9) requires binding of the Fc part of the antibody to the monocytic 72-kDa high-affinity Fc receptor (FcRI). Cell Immunol 1989, 118(1):136-46 | 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