10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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

**Mouse Monoclonal Antibody [Clone B-B12 ]**
**Catalog # AH12597**

## Specification

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

| | |
|---|---|
| Application | **,3,4,** |
| Primary Accession | P07766 |
| Other Accession | 916, 3003 |
| Reactivity | **Human** |
| Host | **Mouse** |
| Clonality | **Monoclonal** |
| Isotype | **Mouse / IgG1, 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:<a href="http://www.uniprot.org/citations/2470098" target="_blank">2470098</a>). 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:<a href="http://www.uniprot.org/citations/10384095" target="_blank">10384095</a>, PubMed:<a href="http://www.uniprot.org/citations/26507128" target="_blank">26507128</a>).

**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. CD3 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. The CD3 complex is closely associated at the lymphocyte cell surface with T cell antigen receptor (TCR) and is involved in transducing antigen-recognition signals into cytoplasm of T cells and in regulating the cell surface expression of the TCR complex.

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

Kishimoto T. et al., eds. Leukocyte Typing VI, p44-48 and p1111, Garland Publishing, Inc, New York and London, 1997.Meuer SC et al. Evidence for the T3-associated 90K heterodimer as the T-cell antigen receptor. Nature 1983, 303(5920):808-810 | Reinherz et al., Cell 30, 715, (1982) | Borst et al., J. Biol. Chem. 258, 5135, (1983) | Van den Elsen et al., Nature 312, (1984) | Furley et al., Cell 46, 75, (1986) | Gold et al., Nature 321, 4, (1986) | Oettgen and Terhorst, Hum. Immunol. 18, 187, (1987) | Clevers et al., Ann. Rev. Immunol. 6, 629, (1988