

**CD3D Antibody**  
Rabbit mAb  
Catalog # AP90981

## Specification

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### CD3D Antibody - Product Information

|                       |                        |
|-----------------------|------------------------|
| Application           | WB, IHC, FC, ICC, IP   |
| Primary Accession     | <a href="#">P04234</a> |
| Clonality             | <b>Monoclonal</b>      |
| <b>Other Names</b>    |                        |
| CD3D; CD3-DELTA; T3D; |                        |
| Isotype               | <b>Rabbit IgG</b>      |
| Host                  | <b>Rabbit</b>          |
| Calculated MW         | <b>18930 Da</b>        |

### CD3D Antibody - Additional Information

|                              |   |
|------------------------------|---|
| Dilution                     | WB~~1:1000<br>IHC~~1:100~500<br>FC~~1:10~50<br>ICC~~N/A<br>IP~~N/A  |
| Purification                 | <b>Affinity-chromatography</b>  |
| Immunogen                    | <b>A synthesized peptide derived from human CD3D</b>  |
| Description                  | <b>The protein encoded by this gene is part of the T-cell receptor/CD3 complex (TCR/CD3 complex) and is involved in T-cell development and signal transduction. The encoded membrane protein represents the delta subunit of the CD3 complex, and along with four other CD3 subunits, binds either TCR alpha/beta or TCR gamma/delta to form the TCR/CD3 complex on the surface of T-cells.</b> |
| Storage Condition and Buffer | <b>Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.</b>  |

### CD3D Antibody - Protein Information

**Name** CD3D  
**Synonyms** T3D  
**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](http://www.uniprot.org/citations/2470098)). In addition of this role of signal transduction in T-cell activation, CD3D plays an essential role in thymocyte differentiation. Indeed, participates in correct intracellular TCR-CD3 complex assembly and surface expression. In absence of a functional TCR-CD3 complex, thymocytes are unable to differentiate properly. Interacts with CD4 and CD8 and thus serves to establish a functional link between the TCR and coreceptors CD4 and CD8, which is needed for activation and positive selection of CD4 or CD8 T-cells (PubMed:[12215456](http://www.uniprot.org/citations/12215456)).

#### Cellular Location

Cell membrane; Single-pass type I membrane protein

#### Tissue Location

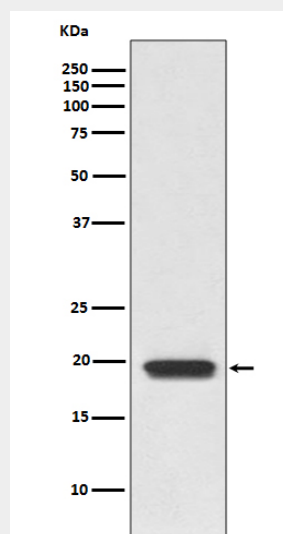
CD3D is mostly present on T-lymphocytes with its TCR-CD3 partners. Present also in fetal NK-cells

#### CD3D Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### CD3D Antibody - Images



Western blot analysis of CD3D expression in Jurkat cell lysate.