

**CD3**  
**Rabbit Monoclonal antibody(Mab)**  
**Catalog # AD80004**

## Specification

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### CD3 - Product info

Application	IHC-P, IHC
Primary Accession	<a href="#">P04234</a>
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal
Calculated MW	18930

### CD3 - Additional info

Gene ID	915
Gene Name	CD3D

#### Other Names

T-cell surface glycoprotein CD3 delta chain, T-cell receptor T3 delta chain, CD3d, CD3D, T3D

#### Dilution

IHC-P~~Ready-to-use

IHC~~Ready-to-use

#### Storage

Maintain refrigerated at 2-8°C

#### Precautions

**CD3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.**

### CD3 - Protein Information

**Name** CD3D

**Synonyms**

**Function**

**T3D**

**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, 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](#)).  
Cell membrane; Single-pass type I membrane protein  
CD3D is mostly present on T-lymphocytes with its TCR-CD3 partners. Present also in fetal NK-cells

Cellular Location

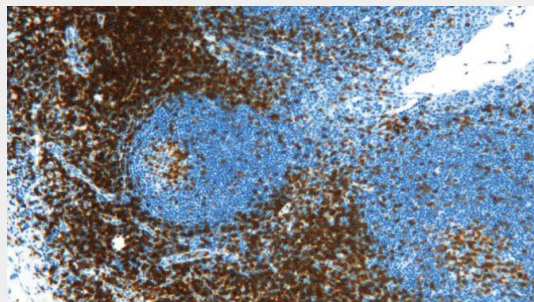
Tissue Location

### CD3 - Protocols

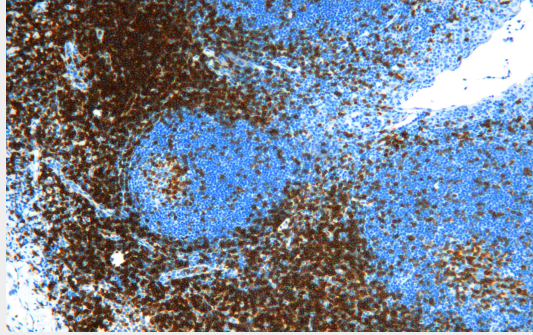
Provided below are standard protocols that you may find useful for product applications.

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

### CD3 - Images



Tonsil



Immunohistochemical analysis of paraffin-embedded human tonsil tissue using AD80004 performed on the Abcarta® FAIP-30 Fully automated IHC platform. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a Citrate buffer (pH6.0). Samples were incubated with primary antibody (Ready-to-use) for 15 min at room temperature. AmpSee™ Detection Systems [Abcepta:AR005] was used as the secondary antibody.