

CD3
Rabbit Monoclonal antibody(Mab)
Catalog # AD80004

Specification

CD3 - Product info

Application	IHC-P, IHC
Primary Accession	P04234
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

This product is stored at 2-8 °C, please use it within the expiration date.

Precautions

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

CD3 - 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](#)). 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

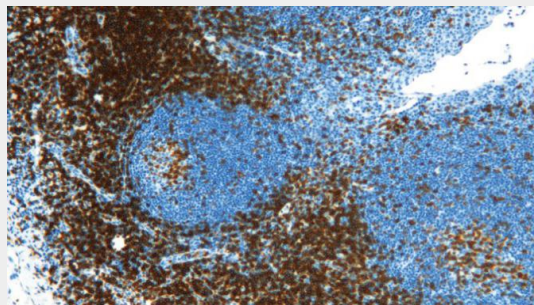
Tissue Location

CD3 - Protocols

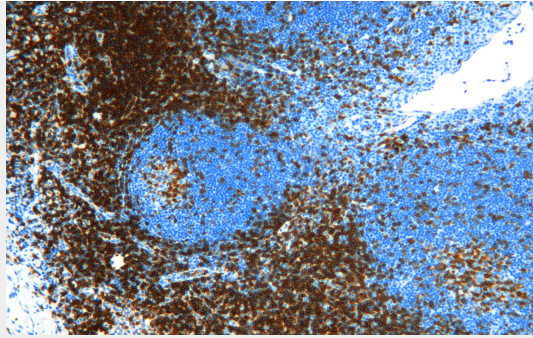
Provided below are standard protocols that you may find useful for product applications.

- [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.