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CD3D Antibody

Rabbit mAb
Catalog # AP90981

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	P04234
Reactivity	Human
Clonality	Monoclonal
Other Names	CD3D; CD3-DELTA; T3D;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	18930

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human CD3D
Description	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.
Storage Condition and Buffer	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.

Protein Information

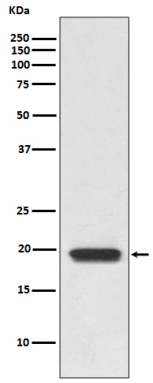
Name	CD3D
Synonyms	T3D
Function	Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response. When antigen presenting cells (APCs) activate T-cell receptor (TCR), TCR- mediated signals are transmitted across the cell membrane by the CD3 chains CD3D, CD3E, CD3G and CD247/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).

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

Images



Western blot analysis of CD3D expression in Jurkat cell lysate.

Image not found : 202311/AP90981-IHC.jpg

Immunohistochemical analysis of paraffin-embedded human spleen, using CD3D Antibody.

Image not found : 202311/AP90981-IF.jpg

Immunofluorescent analysis of Jurkat cells, using CD3D Antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.