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CD3d Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP53292

Product Information

Application	WB
Primary Accession	P04234
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	18930

Additional Information

Gene ID	915
Other Names	T-cell surface glycoprotein CD3 delta chain, T-cell receptor T3 delta chain, CD3d, CD3D, T3D
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human CD3d. The exact sequence is proprietary.
Dilution	WB~~ 1:500
Format	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.09% (W/V) sodium azide and 50% glycerol
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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

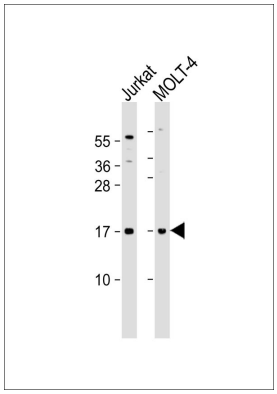
Background

The CD3 complex mediates signal transduction.

References

van den Elsen P.,et al.Proc. Natl. Acad. Sci. U.S.A. 83:2944-2948(1986).
van den Elsen P.,et al.Nature 312:413-418(1984).
Tunnacliffe A.,et al.EMBO J. 5:1245-1252(1986).
Jin P.,et al.Genomics 83:566-571(2004).
Taylor T.D.,et al.Nature 440:497-500(2006).

Images



All lanes : Anti-CD3d Antibody at 1:500 dilution Lane 1: Jurkat whole cell lysate Lane 2: MOLT-4 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution. Predicted band size : 19 kDa Blocking/Dilution buffer: 5% NFDM/TBST.