

CD247 Monoclonal Antibody(4B10)

Catalog No :	YM0114
Reactivity :	Human
Applications :	WB;IHC;IF;FCM;ELISA
Target :	CD247
Fields :	>>Natural killer cell mediated cytotoxicity;>>Th1 and Th2 cell differentiation;>>Th17 cell differentiation;>>T cell receptor signaling pathway;>>Chagas disease;>>Epstein-Barr virus infection;>>Human immunodeficiency virus 1 infection;>>PD-L1 expression and PD-1 checkpoint pathway in cancer
Gene Name :	CD247
Protein Name :	T-cell surface glycoprotein CD3 zeta chain
Human Gene Id :	919
Human Swiss Prot No :	P20963
Mouse Swiss Prot No :	P24161
Immunogen :	Purified recombinant fragment of human CD247 expressed in E. Coli.
Specificity :	CD247 Monoclonal Antibody detects endogenous levels of CD247 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Monoclonal, Mouse
Dilution :	WB 1:500 - 1:2000. IHC 1:200 - 1:1000. IF 1:200 - 1:1000. Flow cytometry: 1:200 - 1:400. ELISA: 1:10000. Not yet tested in other applications.
Purification :	Affinity purification
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight : 19kD

Cell Pathway : Natural killer cell mediated cytotoxicity;T_Cell_Receptor;

P References :

1. J Immunol. 2002 Aug 15;169(4):1705-12.
2. Arthritis Rheum. 2003 Jul;48(7):1948-55.
3. Nat Methods. 2005 Aug;2(8):591-8.

Background :

The protein encoded by this gene is T-cell receptor zeta, which together with T-cell receptor alpha/beta and gamma/delta heterodimers, and with CD3-gamma, -delta and -epsilon, forms the T-cell receptor-CD3 complex. The zeta chain plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. Low expression of the antigen results in impaired immune response. Two alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008],

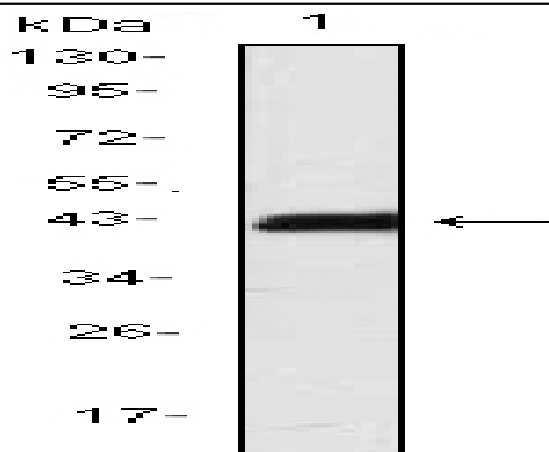
Function :

disease:Defects in CD247 are a cause of primary T-cell immunodeficiency [MIM:610163]. Affected individuals suffer of recurrent infections. Patients T-cell counts are very low and B-cell counts are normal.,domain:The ITAM domains mediate interaction with SHB.,function:Probable role in assembly and expression of the TCR complex as well as signal transduction upon antigen triggering.,online information:CD247 mutation db,PTM:Phosphorylated on Tyr residues after T-cell receptor triggering.,similarity:Belongs to the CD3Z/FCER1G family.,similarity:Contains 3 ITAM domains.,subunit:The TCR/CD3 complex of T-lymphocytes consists of either a TCR alpha/beta or TCR gamma/delta heterodimer coexpressed at the cell surface with the invariant subunits of CD3 labeled gamma, delta, epsilon, zeta, and eta. CD3-zeta forms either homodimers or heterodimers with CD3-eta. Interacts with SLA and SLA2. Interacts w

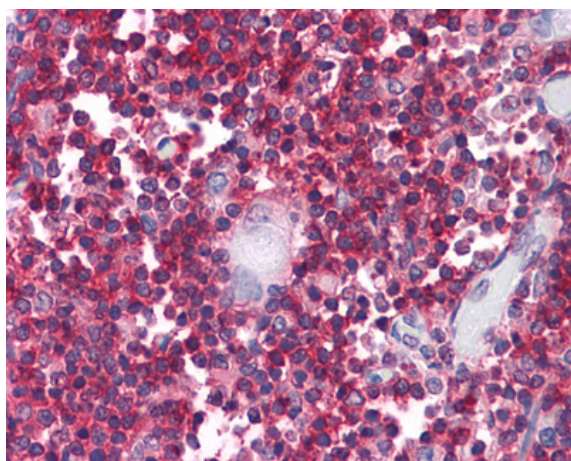
Subcellular Location : Cell membrane ; Single-pass type I membrane protein.

Expression : CD3Z is expressed in normal lymphoid tissue and in peripheral blood mononuclear cells (PBMCs) (PubMed:11722641).

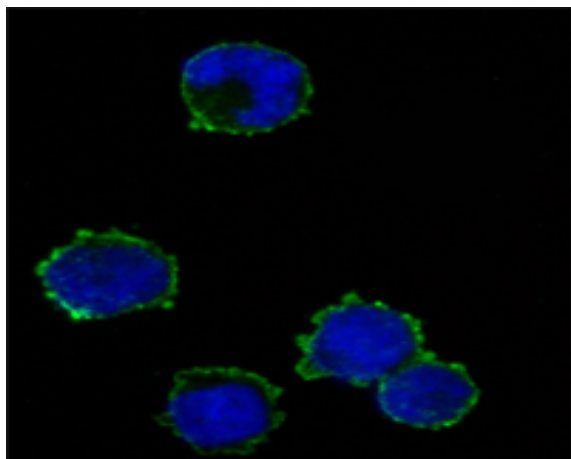
Products Images



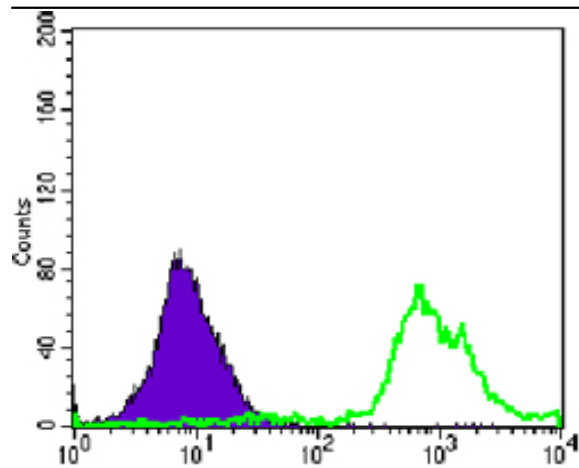
Western Blot analysis using CD247 Monoclonal Antibody against CD247-hlgGfc transfected HEK293 cell lysate.



Immunohistochemistry analysis of paraffin-embedded human Thymus tissues with AEC staining using CD247 Monoclonal Antibody.



Immunofluorescence analysis of K562 cells using CD247 Monoclonal Antibody (green). Blue: DRAQ5 fluorescent DNA dye.



Flow cytometric analysis of Jurkat cells using CD247 Monoclonal Antibody (green) and negative control (purple).