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Anti-CD3 Epsilon Picoband Antibody

Catalog # ABO11801

Product Information

Application	WB, IHC, IHC-P, IHC-F, IF, IC, ICC
Primary Accession	P07766
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for T-cell surface glycoprotein CD3 epsilon chain(CD3E) detection. Tested with WB, IHC-P, IHC-F, ICC in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	916
Other Names	T-cell surface glycoprotein CD3 epsilon chain, T-cell surface antigen T3/Leu-4 epsilon chain, CD3e, CD3E, T3E
Calculated MW	23147
Application Details	Immunocytochemistry , 0.5-1 □g/ml, Human, - Immunohistochemistry(Frozen Section), 0.5-1 □g/ml, Mouse, Rat, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human
Subcellular Localization	Membrane; Single-pass type I membrane protein.
Source	Eukaryota
Protein Name	T-cell surface glycoprotein CD3 epsilon chain
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human CD3 epsilon recombinant protein (Position: D23-I207). Human CD3 epsilon shares 65% amino acid (aa) sequence identity with mouse CD3 epsilon.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Contains 1 Ig-like (immunoglobulin-like) domain.

Protein Information

Name	CD3E
Synonyms	T3E
Function	Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response (PubMed:15294938, PubMed:15546002, PubMed:2470098, PubMed:40592325, PubMed:8490660). 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 (PubMed:2470098, PubMed:40592325). All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain (PubMed:2470098, PubMed:40592325). 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, PubMed:40592325). CD3E ITAM phosphorylation creates docking sites for the protein kinase ZAP70 leading to ZAP70 phosphorylation and its conversion into a catalytically active enzyme (By similarity). In addition of this role of signal transduction in T-cell activation, CD3E plays an essential role in correct T-cell development (By similarity). Also participates in internalization and cell surface down-regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (PubMed:10384095, PubMed:26507128). In addition to its role as a TCR coreceptor, it serves as a receptor for ITPRIPL1 (PubMed:38614099). Ligand recognition inhibits T-cell activation by promoting interaction with NCK1, which prevents CD3E-ZAP70 interaction and blocks the ERK- NFkB signaling cascade and calcium influx (PubMed:12110186, PubMed:38614099).
Cellular Location	Cell membrane; Single-pass type I membrane protein

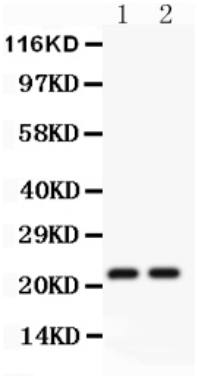
Background

CD3e molecule, epsilon also known as CD3E is a polypeptide which in humans is encoded by the CD3E gene which resides on chromosome 11. It is mapped to 11q23.3. The protein encoded by this gene is the CD3-epsilon polypeptide, which together with CD3-gamma, -delta and -zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. The epsilon polypeptide plays an essential role in T-cell development.

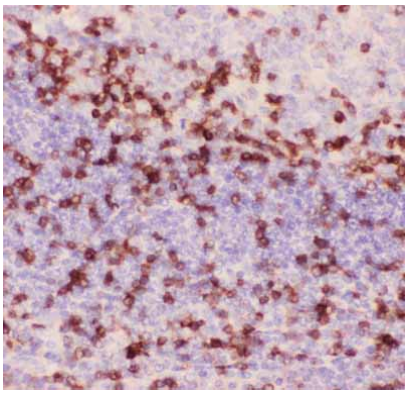
Images

Anti-CD3 epsilon Picoband antibody, ABO11801-1.jpgAll lanes: Anti CD3 Epsilon (ABO11801) at 0.5ug/mlWB : Recombinant Human CD3epsilon Protein 0.5ng Predicted bind size: 40KDObserved bind size: 40KD

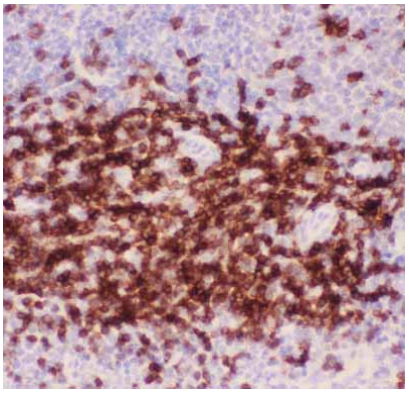




Anti-CD3 epsilon Picoband antibody, ABO11801-2.jpgAll lanes: Anti CD3 Epsilon (ABO11801) at 0.5ug/mlLane 1: JURKAT Whole Cell Lysate at 40ugLane 2: CEM Whole Cell Lysate at 40ugPredicted bind size: 23KDObserved bind size: 23KD

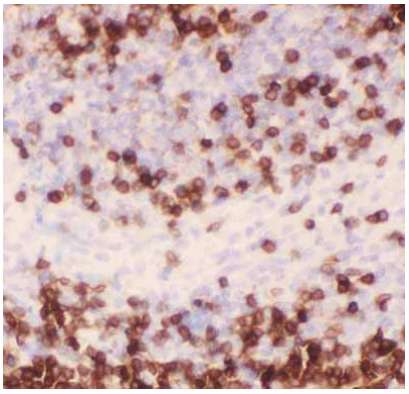


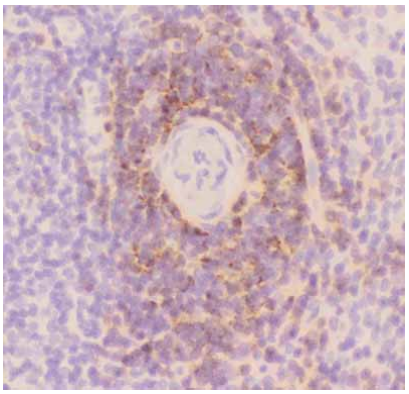
Anti-CD3 epsilon Picoband antibody, ABO11801-3.JPGIHC(P): Human Tonsil Tissue



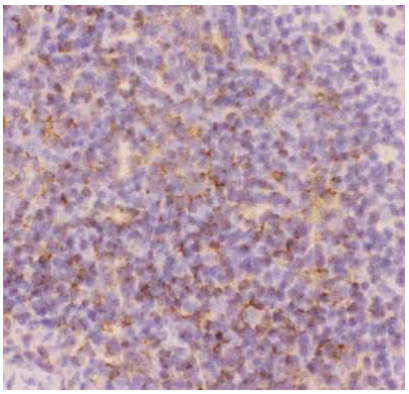
Anti-CD3 epsilon Picoband antibody, ABO11801-4.JPGIHC(P): Mouse Spleen Tissue

Anti-CD3 epsilon Picoband antibody, ABO11801-5.JPGIHC(P): Rat Spleen Tissue





Anti-CD3 epsilon Picoband antibody, pb9093-6.JPGIHC(F): Rat Spleen Tissue



Anti-CD3 epsilon Picoband antibody, pb9093-7.JPGIHC(F): Mouse Spleen Tissue

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