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Anti-CD3e-AcalephFluor647-labled

Catalog # AP100936

Product Information

Application	FC, IF/IC
Primary Accession	P22646
Reactivity	Mouse
Clonality	Monoclonal
Calculated MW	21393

Additional Information

Gene ID	12501
Other Names	T3E; T-cell surface glycoprotein CD3 epsilon chain; T-cell surface antigen T3/Leu-4 epsilon chain; CD3e
Target/Specificity	Recognizes mouse CD3e
Dilution	FC~~1:10~50 IF/IC~~N/A
Format	Armenian Hamster IgG. Liquid in PBS, pH 7.3, 0.2% BSA, and 0.02% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	Cd3e
Function	Part of the TCR-CD3 complex present on T-lymphocyte cell surface that plays an essential role in adaptive immune response (PubMed:9843989, PubMed:10952314, PubMed:19956738, PubMed:24470497, PubMed:24899501, PubMed:40592325). 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:10952314, PubMed:19956738, PubMed:24899501, PubMed:40592325). All CD3 chains contain immunoreceptor tyrosine-based activation motifs (ITAMs) in their cytoplasmic domain (PubMed:10952314, PubMed:19956738, PubMed:24899501, 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:10952314, PubMed:19956738, PubMed:24899501, 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 (PubMed:10952314). In addition of this role of signal transduction in T-cell activation, CD3E plays an

	essential role in correct T-cell development (PubMed:10952314, PubMed:19956738, PubMed:24899501). Also participates in internalization and cell surface down-regulation of TCR-CD3 complexes via endocytosis sequences present in CD3E cytosolic region (By similarity). In addition to its role as a TCR coreceptor, it serves as a receptor for ITPRIPL1 (By similarity). 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 (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P07766}

Background

AcalephFluor647-labled armenian hamster monoclonal antibody to CD3e

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