

APC Human CD3 (C-Fc)

Catalog Number:	810603, 810604
Size:	25 ug, 100 ug
Target Name:	CD3-epsilon, FLJ18683, T3E, TCRE, CD3E
Regulatory Status:	RUO

PRODUCT DETAILS

Application:	Flow Cytometry
Format:	Liquid, APC
Expression Host:	CHO
Species:	Human
Sources:	Recombinant Human CD3 Protein (Asp 23- Asp126) with C-terminus Fc-tag is expressed in CHO cell and conjugated to APC.
Accession Number:	P07766
Molecular Weight:	The protein has a predicted molecular weight of 37.9 kDa. Under DTT-reducing conditions, it migrates at approximately 45 kDa on SDS-PAGE prior to conjugation.
Affinity Tag:	C-Fc
Formulation:	1xPBS buffer, pH7.4, 0.09% NaN3 with a carrier protein
Endotoxin level:	Not tested
Protein Concentration:	25µg size is bottled at 0.1mg/mL concentration. 100 µg size is bottled at lot specific concentration.
Storage and Handling:	Briefly centrifuge the vial upon receipt. An unopened vial may be stored at 2-8°C for up to six months.

BACKGROUND INFORMATION

CD3ε is a critical component of the T cell receptor (TCR)-CD3 complex, a transmembrane receptor essential for antigen recognition and T cell activation. It is a single-pass type I membrane glycoprotein containing an Ig-like extracellular domain and a cytoplasmic ITAM motif, which initiates intracellular signaling upon phosphorylation by Src family kinases (e.g., LCK, FYN). The TCR-CD3 complex includes two CD3ε chains, CD3γ, CD3δ, CD3ζ, and a TCR α/β or γ/δ heterodimer. CD3ε is expressed on all mature T cells, NK T cells, and some thymocytes, playing a vital role in T cell development and immune response. Mutations in CD3E disrupt T cell maturation and can lead to severe combined immunodeficiency (SCID), as well as increased susceptibility to autoimmune diseases such as type I diabetes.