

Technical Data Sheet

APC conjugated 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: FC
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

CD3 ϵ 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 CD3 ϵ chains, CD3 δ , CD3 γ , CD3 ζ , and a TCR α/β or γ/δ heterodimer. CD3 ϵ 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.