**InnoCyto Inc.**
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# Technical Data Sheet

PE conjugated Human CD3 (C-Fc)

**Catalog Number:** 810601, 810602
**Size:** 25 ug, 100 ug
**Target Name:** CD3-epsilon, FLJ18683, T3E, TCRE, CD3E
**Regulatory Status:** RUO

## Product Details

**Application:** FC
**Format:** Liquid, PE
**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 PE.
**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? 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? chains, CD3?, CD3?, CD3?, and a TCR ?/? or ?/? heterodimer. CD3? 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.