

Human CD3 (C-Fc)

Catalog Number:	810501, 810502
Size:	25 ug, 100 ug
Target Name:	CD3-epsilon, FLJ18683, T3E, TCRE, CD3E
Regulatory Status:	RUO

PRODUCT DETAILS

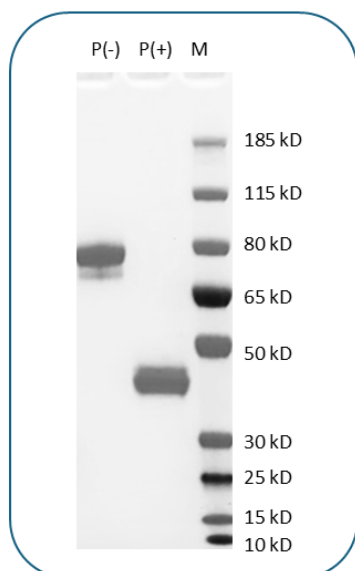
Application:	ELISA, BLI
Format:	Liquid, Purified
Expression Host:	CHO
Species:	Human
Sources:	Recombinant Human CD3 Protein (Asp 23- Asp126) with C-terminus Fc-tag is expressed in CHO cell.
Accession Number:	P07766
Molecular Weight:	The protein has a predicted molecular weight of 37.9 kDa. Under DTT-reducing conditions, it migrates at approximately 45 kDa on SDS-PAGE.
Affinity Tag:	C-Fc
Purity:	>95% based on SDS-PAGE under reducing condition
Formulation:	1xPBS buffer, pH7.4, 0.22 µm filtered
Endotoxin level:	Less than 0.1 EU/µg protein as determined by the LAL method
Protein Concentration:	25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.
Storage and Handling:	Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

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.

PRODUCT DATA



Human CD3 Protein (C-Fc) on SDS-PAGE under reducing condition (P+) and non-reducing condition (P-). The gel was stained for 1 hour with BlinkBlue (catalog 700102). The purity of this protein appears to be greater than 95%.

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