Active Recombinant Human CD3E Protein, Fc&His Tagged

Cat. No. CD3E-11236H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human CD3 epsilon, Fc, His Tag is expressed from human 293 cells (HEK293). It contains AA Asp 23-Asp 126 (Accession # NP_000724.1). This protein carries a human IgG1 Fc tag at the C-terminus, followed by a polyhistidine tag. Predicted N-terminus: Asp 23
Species	Human
Source	HEK293
ProteinLength	23-126 aa
Description	CD3e molecule, epsilon is also known as CD3E, is a T-cell surface single-pass type I membrane glycoprotein. CD3E contains 1 Ig-like (immunoglobulin-like) domain and 1 ITAM domain. CD3E, together with CD3-gamma, CD3-delta and CD3-zeta, and the T-cell receptor alpha/beta and gamma/delta heterodimers, forms the T cell receptor-CD3 complex. This complex plays an important role in coupling antigen recognition to several intracellular signal-transduction pathways. The genes encoding the epsilon, gamma and delta polypeptides are located in the same cluster on chromosome 11. The epsilon polypeptide plays an essential role in T-cell development. CD3E plays an essential role in T-cell development, and defects in CD3E gene cause severe immunodeficiency. CD3E gene has also been linked to a susceptibility to type I diabetes in women. CD3E has been shown to interact with TOP2B, CD3EAP and NCK2.

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Form	Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.
Bio-activity	Immobilized Anti Human CD3 MAb, mouse IgG1 at 2 μg/mL (100 μL/well) can bind Human CD3 epsilon, Fc, His Tag with a linear range of 0.1-3 ng/mL.
Molecular Mass	The protein has a calculated MW of 39.2 kDa. The protein migrates as 43-50 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU/μg by the LAL method/rFC method.
Purity	>95% as determined by SDS-PAGE.
Storage	This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 μg/μL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

Gene Name	CD3E CD3e molecule, epsilon (CD3-TCR complex) [Homo sapiens (human)]
Official Symbol	CD3E
Synonyms	CD3E; CD3e molecule, epsilon (CD3-TCR complex); CD3e antigen, epsilon polypeptide (TiT3 complex); T-cell surface glycoprotein CD3 epsilon chain; CD3-epsilon; T-cell surface antigen T3/Leu-4 epsilon chain; T-cell antigen receptor

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	complex, epsilon subunit of T3; T3E; TCRE; FLJ18683;
Gene ID	916
mRNA Refseq	NM_000733
Protein Refseq	NP_000724
MIM	186830
UniProt ID	P07766

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