Recombinant Human CD3E Protein (Met1-Asp126), His-tagged, Biotinylated

Cat. No. CD3E-463H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CD3E Protein (NP_000724.1) (Met1-Asp126) was produced by CHO Stable Cells expression system. This protein was expressed with a C-terminal polyhistidine tag. The purified protein was biotinylated in vitro.
Species	Human
Source	CHO
ProteinLength	Met1-Asp126
Description	T-cell surface glycoprotein CD3 epsilon chain, also known as CD3E, is a single-pass type I membrane protein. 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. The CD3 epsilon subunit of the T cell receptor (TCR) complex contains two defined signaling domains, a proline-rich sequence and an immune tyrosine activation motifs (ITAMs), and this complex undergoes a conformational change upon ligand binding that is thought to be important for the activation of T cells. In the CD3 epsilon mutant mice, all stages of T cell development and activation that are TCR-dependent were impaired, but not eliminated, including activation of mature naïve T cells with the MHCII presented superantigen, staphylococcal enterotoxin B, or with a strong TCR cross-linking antibody specific for either TCR-Cbeta or CD3 epsilon. T cell receptor-CD3 complex plays an important role in coupling antigen recognition to

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	several intracellular signal-transduction pathways. This complex is critical for T-cell development and function, and represents one of the most complex transmembrane receptors. CD3E plays an essential role in T-cell development, and defects in CD3E gene cause severe immunodeficiency. Homozygous mutations in CD3D and CD3E genes lead to a complete block in T-cell development and thus to an early-onset severe combined immunodeficiency phenotype.
Predicted N Terminal	Asp 23
Form	Lyophilized from sterile Sterile PBS. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant CD3E consists of 115 amino acids and predicts a molecular mass of 13.2 kDa.
Endotoxin	< 1.0 EU per μg protein as determined by the LAL method.
Purity	> 95 % as determined by SDS-PAGE.
Stability	Samples are stable for up to twelve months from date of receipt at -70 centigrade.
Storage	Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. 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 mg/ml. Centrifuge the vial at 4℃ before opening to recover the entire contents.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.

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	Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.
Conjugation	Biotin

GENE INFORMATION

Gene Name	CD3E CD3e molecule, epsilon (CD3-TCR complex) [Homo sapiens]
Official Symbol	CD3E
Synonyms	CD3E; CD3e molecule, epsilon (CD3-TCR complex); CD3-epsilon; T3E; TCRE; FLJ18683;
Gene ID	916
mRNA Refseq	NM_000733
Protein Refseq	NP_000724
UniProt ID	P07766

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