Recombinant Cynomolgus CD3E, His-tagged, Biotinylated

Cat. No. CD3E-114C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Cynomolgus CD3E /CD3 Epsilon Protein, Biotinylated (Biotinylated Cyno-CD3E) Gln 22 - Asp 117, was labeled with biotin based on rCynoCD3E Protein, which was produced in human 293 cells (HEK293).
Species	Cynomolgus
Source	HEK293
Description	CD3e molecule, epsilon 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.The primary amine of rCynoCD3E was labeled by biotin without decreasing its bioactivity, and has been used successfully for easy detection in ELISA, dot blot or Western blot, immunohistochemistry applications using streptavidin or avidin-conjugated probes. Biotin and other reactive related chemicals have been removed thoroughly by desalting after reaction termination.

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Form	Lyophilized from 0.22 μm filtered solution in PBS, pH7.4. Normally Trehalose are added as protectants before lyophilization.
Molecular Mass	Biotinylated Cyno-CD3E, fused with 6×His tag at the C-terminus, has a calculated MW of 11.7 kDa. The predicted N-terminus is Gln 22. DTT-reduced Protein migrates as 19 kDa due to glycosylation.The primary amine of Biotinylated Cyno-CD3E was labeled by biotin for detection in ELISA, dot blot or western blot using streptavidin or avidin-conjugated probes.
Endotoxin	Less than 1.0 EU per μg of the Biotinylated Cyno-CD3E by the LAL method.
Purity	>95% as determined by reduced SDS-PAGE.
Storage	Avoid repeated freeze-thaw cycles. No activity loss was observed after storage at: In lyophilized state for 1 year (4oC); After reconstitution under sterile conditions for 3 months (-70oC).
Reconstitution	See Certificate of Analysis for details of reconstitution instruction and specific concentration.
Conjugation	Biotin

GENE INFORMATION

Gene Name	CD3E CD3e molecule, epsilon (CD3-TCR complex) [Macaca fascicularis (crab-eating macaque)]
Official Symbol	CD3E
Synonyms	CD3E; T-cell surface glycoprotein CD3 epsilon chain; CD3 epsilon FN18+; CD3 epsilon FN18-

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Gene ID	102133065
mRNA Refseq	NM_001283615
Protein Refseq	NP_001270544
UniProt ID	Q95LI5
Chromosome Location	14
Pathway	Chagas disease (American trypanosomiasis); HTLV-I infection; Hematopoietic cell lineage

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