Recombinant Rhesus CD3E Protein, His-tagged

Cat. No. Cd3e-322R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rhesus CD3E (XP_001097204.1) CD3E extracellular domain (Met 1-Asp 117) was fused with a polyhistidine tag at the C-terminus.
Species	Rhesus macaque
Source	HEK293
ProteinLength	Met 1-Asp 117
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, staphyl centigrade centigradecal 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 several intracellular signal-transduction pathways. This complex is critical for T-cell development and function, and represents one of the

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	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 bl centigradek in T-cell development and thus to an early-onset severe combined immunodeficiency phenotype.
Predicted N Terminal	Gln 22
Form	Lyophilized from sterile PBS, pH 7.4. Normally 5 %- 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Molecular Mass	The recombinant rhesus CD3E consists of 107 amino acids and has a calculated molecular mass of 12.3 kDa.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method
Purity	> 96 % as determined by SDS-PAGE
Storage	Samples are stable for up to twelve months from date of receipt at-70 centigrade. 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 ug/ul. Centrifuge the vial at 4℃ before opening to recover the entire contents.

GENE INFORMATION

Official Symbol	Cd3e
Synonyms	Cd3e;CD3e molecule, epsilon (CD3-TCR complex)

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