

Synonym

FLJ18683,T3E,TCRE,CD3E,CD3-epsilon

SourceHuman CD3 epsilon, Fc,His Tag(CDE-H5256) is expressed from human 293 cells (HEK293). It contains AA Asp 23 - Asp 126 (Accession # [NP_000724.1](#)).

Predicted N-terminus: Asp 23

Molecular Characterization

CD3E(Asp 23 - Asp 126) NP_000724.1	Fc(Pro 100 - Lys 330) P01857	Poly-his
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This protein carries a human IgG1 Fc tag at the C-terminus, followed by a polyhistidine tag

The protein has a calculated MW of 39.2 kDa. The protein migrates as 45-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

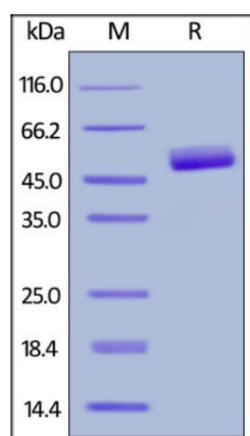
*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

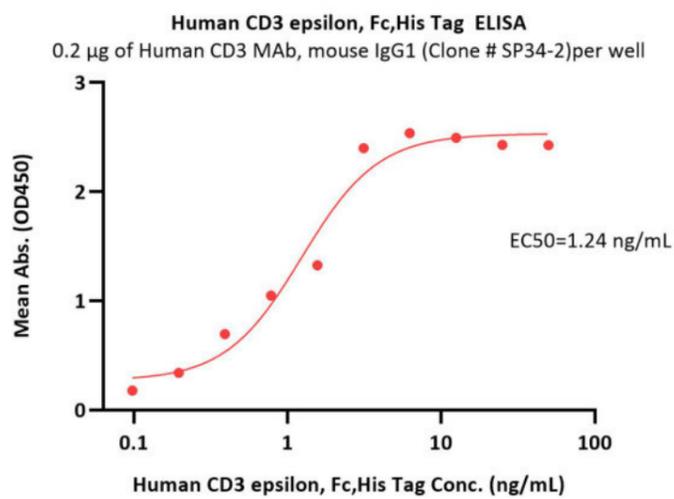
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

Human CD3 epsilon, Fc,His Tag on SDS-PAGE under reducing (R) condition.

The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Anti Human CD3 MAb, mouse IgG1 (Clone # SP34-2) at 2 µg/mL (100 µL/well) can bind Human CD3 epsilon, Fc,His Tag (Cat. No. CDE-H5256) with a linear range of 0.1-3 ng/mL (Routinely tested).

Background

CD3ε 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-γ, CD3-δ and CD3-ζ, and the T-cell receptor α/β and γ/δ 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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.