

CD3 epsilon/CD3ε Protein, Cynomolgus, Recombinant (hFc)

General Information

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| Synonyms: | CD3ε molecule, ε (CD3-TCR complex); CD3 ε/CD3ε; CD3ε molecule, epsilon (CD3-TCR complex) |
| Protein Construction: | Gln22-Asp117 |
| Species: | Cynomolgus |
| Expression Host: | HEK293 Cells |
| Accession: | Q95LI5-1 |
| Molecular Weight: | 36.9 kDa (Predicted); 43-48 kDa (Due to glycosylation) |

QC Testing

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| Biological Activity: | Immobilized Cynomolgus CD3E, hFc Tag at 0.5 µg/ml (100 µl/well) on the plate. Dose response curve for Biotinylated Anti-CD3E Antibody, hFc Tag with the EC50 of 78.8 ng/ml determined by ELISA. |
| Purity: | > 95% as determined by Tris-Bis PAGE |
| Endotoxin: | < 1.0 EU/µg of the protein as determined by the LAL method. |
| Formulation: | Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization. |

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

CD3E, is a single-pass type I membrane protein. CD3 (cluster of differentiation 3) T cell co-receptor helps to activate both the cytotoxic T cell (CD8 naive T cells) and also T helper cells (CD4 naive T cells). It consists of a protein complex and is composed of four distinct chains. In mammals, the complex contains a CD3γ chain, a CD3δ chain, and two CD3ε chains.

Reference

Fischer A, et al. (2005) CD3 deficiencies. *Curr Opin Allergy Clin Immunol.* 5(6): 491-5.

Wang Y, et al. (2009) A conserved CXXC motif in CD3epsilon is critical for T cell development and TCR signaling. *PLoS Biol.* 7(12): e1000253.

Martnez-Martn N, et al. (2009) Cooperativity between T cell receptor complexes revealed by conformational mutants of CD3epsilon. *Sci Signal.* 2(83): ra43.

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