Monoclonal Anti-Human CD3 Antibody, Mouse IgG1 (SP34-2)

Catalog # CDE-M531

Source

Monoclonal Anti-Human CD3 Antibody, Mouse IgG1 (SP34-2) is a monoclonal antibody recombinantly expressed from human 293 cells (HEK293).

Isotype

Mouse IgG1/kappa

Specificity

This product is a specific antibody specifically reacts with CD3.

Application

FACS

Purity

>95% as determined by SDS-PAGE.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

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

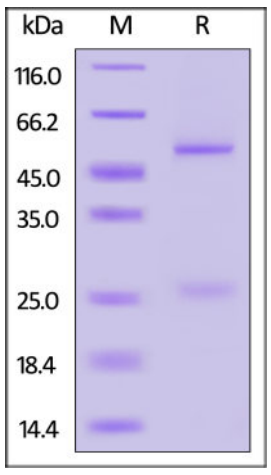
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

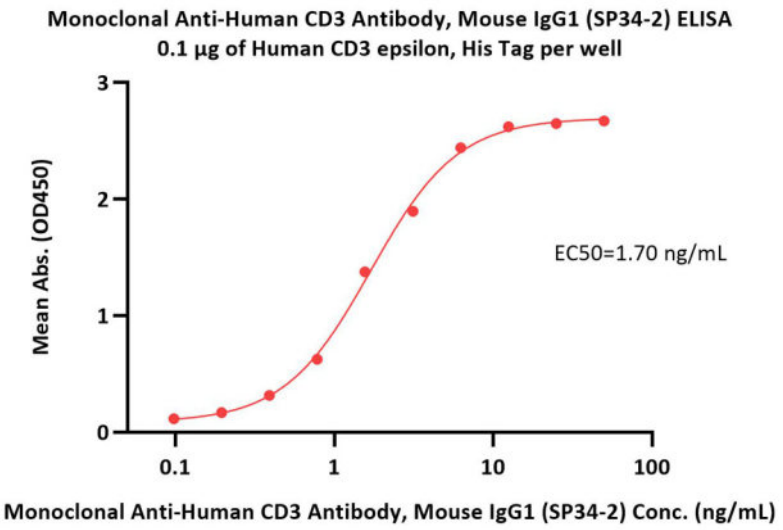
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 12 months under sterile conditions after reconstitution.

SDS-PAGE



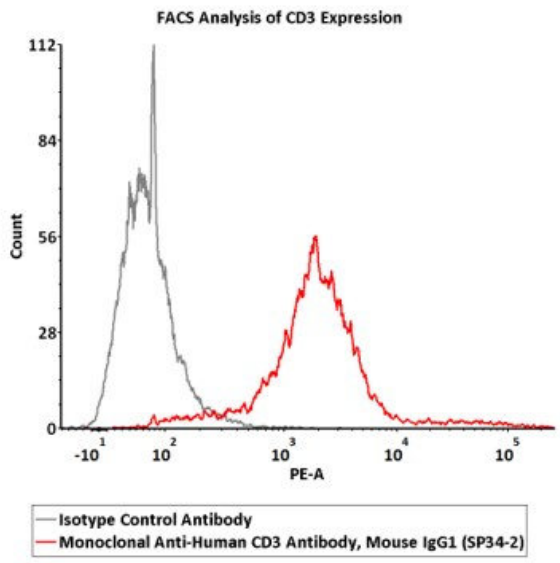
Monoclonal Anti-Human CD3 Antibody, Mouse IgG1 (SP34-2) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-Elisa



Immobilized Human CD3 epsilon, His Tag (Cat. No. CDE-H5223) at 1 μg/mL (100 μL/well) can bind Monoclonal Anti-Human CD3 Antibody, Mouse IgG1 (SP34-2) (Cat. No. CDE-M531) with a linear range of 0.4-6 ng/mL (QC tested).

Bioactivity-FACS



2e5 of Jurkat cells were stained with 100 μL of 10 μg/mL of Monoclonal Anti-Human CD3 Antibody, Mouse IgG1 (SP34-2) (Cat. No. CDE-M531) and isotype control antibody respectively, washed and then followed by PE-anti mouse IgG1 antibody and analyzed with FACS (Routinely tested).

Background

CD3e 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-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.

Clinical and Translational Updates