Source

PE-Labeled Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (OKT3) is produced via conjugation of PE to Anti-Human CD3 Antibody, Mouse IgG2a (OKT3) under optimal conditions with a new generation site-specific technology under Star Staining labeling platform.

Application

Flow Cytometry (Detection the expression of CD3 on Human cells).

Clone

OKT3

Species

Mouse

Isotype

Mouse IgG2a/kappa

Specificity

This product is a specific antibody specifically reacts with CD3 epsilon protein.

Reactivity

Human

Immunogen

Purified Human CD3ε Protein.

Conjugate

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

Isotype Control

The Isotype control is sold separately and you can search for Cat. No. ***DNP-PM487*** for product information.

Recommended Dilution

1:50

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, 0.03% Proclin 300, 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

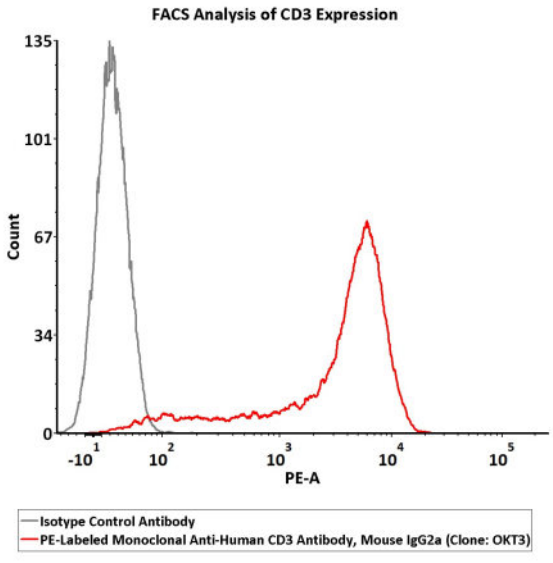
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 12 months after reconstitution;
- 2-8°C for 12 months after reconstitution.

Bioactivity-FACS



Flow cytometric analysis of Jurkat cells staining with PE-Labeled Monoclonal Anti-Human CD3 Antibody, Mouse IgG2a (Clone: OKT3) (Cat. No. CDE-PCFP1) at 1:50 dilution (2μL of the antibody stock solution corresponds to labeling of 1e6 cells in a final volume of 100 μL) , compared with isotype control antibody. PE signal was used to evaluate the binding activity (QC 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