



## Source

Monoclonal Anti-Human CD3 Antibody, Mouse IgG1 (UCHT1) is a monoclonal antibody recombinantly expressed from human 293 cells (HEK293), which provides higher batch consistency and long term security of supply.

## Application

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

## Species

Mouse

## Isotype

Mouse IgG1 | Mouse Kappa

## Specificity

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

## Reactivity

Human

## Immunogen

Purified Human CD3ε Protein.

## Conjugate

FITC

Excitation source: 488 nm spectral line, argon-ion laser

Excitation Wavelength: 488 nm

Emission Wavelength: 535 nm

## Isotype Control

The Isotype control is sold separately and you can search for Cat. No. [DNP-FM1A1](#) 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

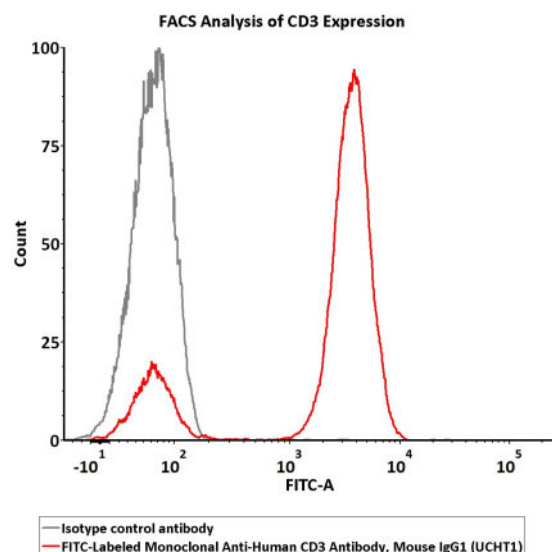
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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 month after reconstitution.

## Bioactivity-FACS



Flow cytometric analysis of Human peripheral blood lymphocytes staining with FITC-Labeled Monoclonal Anti-Human CD3 Antibody, Mouse IgG1

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(UCHT1) (Cat. No. CD3-FM532) at 1:50 dilution (2  $\mu$ L of the antibody stock solution corresponds to labeling of  $1e6$  PBMCs in a final volume of 100  $\mu$ L), compared with isotype control antibody. FITC 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

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