CD3 Mouse Anti-Human Monoclonal Antibody PerCP-Cy®5.5 Conjugate

Store at 2°C to 8°C

Pub. No. MAN0010693   Rev. 1.00

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<td>PerCP-Cy®5.5</td>
<td>25 µg</td>
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Product description

The CD3 Mouse Anti-Human Monoclonal Antibody (mAb) is specific for human CD3e, also known as CD3 epsilon, a 20 kDa subunit of the T cell receptor complex. CD3 epsilon, along with CD3 gamma and CD3 delta associate with the T cell receptor (TCR) and the CD3 zeta chain to form the T cell receptor-CD3 complex. Together with coreceptors CD4 or CD8, the complex serves to recognize antigens bound to MHC molecules on antigen-presenting cells. These interactions promote T cell receptor signaling (T cell activation), inducing cell proliferation, differentiation, production of cytokines or activation-induced cell death. CD3 is differentially expressed during thymocyte-to-T cell development and on all mature T cells. The UCHT1 clone is a widely used phenotypic marker for human T cells. In addition, binding/cross-linking of the antibody to CD3e can induce cell activation. The antibody reacts with both surface-expressed and intracellular CD3e protein. The UCHT1 clone reacts with both surface-expressed and intracellular CD3e protein, in contrast to the human CD3 HIT3a clone, which stains only the extracellular (membrane-expressed) CD3e protein. The antibody is reported to be crossreactive with chimpanzee for flow cytometry, however it is reported to be unsuitable for induction of T cell activation in this species.11

Product Specifications

Clonality: Monoclonal
Host/Class: Mouse IgG
Reactivity: Human CD3
Alternate Names: Leu-4, T3
Gene ID: 915
Sequence Identity: Human
Clone/PAD: UCHT1
Isotype: IgG1κ
Lot: See product label

Product applications

The antibody has been used in flow cytometry,3 functional assays,1,2,8 immunohistochemistry of frozen tissue,5,6,7 immunofluorescence microscopy,4 immunoprecipitation,8 and western blotting analysis.9 Other applications may work but have not been tested.

Because conditions may vary, it is recommended that each investigator determine the optimal amount of antibody to be used for each application.

Storage and handling

Store reagents at 2°C to 8°C. If the reagent is being diluted, it is recommended that only the quantity to be used within one week be diluted. Cells should be analyzed within 18 hours of staining for best results.

Avoid light exposure with fluorochrome-conjugated antibodies. Use dim light during handling, incubation with cells, and prior to analysis.

Stability

When stored as instructed, expires six months from date of receipt unless otherwise indicated on the Certificate of Analysis.

Storage buffer

10 mM NaH2PO4, 150 mM NaCl, 0.1% gelatin, pH 7.2, and 0.09% sodium azide.

CAUTION! Sodium azide is extremely toxic and may react with lead and copper plumbing to form highly explosive metal azides. Properly dispose of solutions containing sodium azide. Read the Safety Data Sheet (SDS) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. SDSs are available at www.lifetechnologies.com/support.

For Research Use Only. Not for use in diagnostic procedures

Manufacturing Site • 7335 Executive Way • Frederick • MD 21704 • E-mail: techsupport@lifetech.com
References


Product documentation

To obtain a Certificate of Analysis or Safety Data Sheets (SDSs), visit www.lifetechnologies.com/support.

Important licensing information

This product may be covered by one or more Limited Use Label Licenses. By use of this product, you accept the terms and conditions of all applicable Limited Use Label Licenses.

Explanation of symbols

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19 May 2014