

# anti-human CD3

## Monoclonal antibody UCHT-1 to human CD3

Cat-No: **21620031**

100 µg in 100 µl

**Clone:** UCHT-1

**Specificity:** The antibody UCHT1 recognizes the CD3 antigen of the TCR/CD3 complex on mature human T cells. The UCHT1 antibody reacts with the epsilon chain of the CD3 complex.

**HLDA I; WS Code T 3; HLDA III; WS Code T 126**

**HLDA III; WS Code T 471; HLDA VI; WS Code T 6T-CD3.1**

**Isotype subclass:** Mouse monoclonal IgG1/kappa

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS with 0.09 % sodium azide (pH 7.2).

**Expiration date:** The reagent is stable until the expiry date stated on the vial label.

**Storage conditions:** Store at 4°C. For long-term aliquot and store at -20°C. Avoid freeze/thaw cycles.

**Application:** The UCHT-1 antibody is recommended for frozen tissue sections, histology, RIA, immunoprecipitation and flow cytometry.

The epitope for UCHT-1 a-CD3 is resistant to fixation. For purposes where pre-fixed cells are stained, this antibody is recommended.

### References:

- \*Huang Y, Wange RL: J Biol Chem. 2004 Jul 9;279(28):28827-30.
- \*Kuhns MS and others: Immunity. 2006 Feb;24(2):133-9.
- \*Alarcón B and others: EMBO Rep. 2006 May;7(5):490-5.

**Background:** CD3 complex is crucial in transducing antigen-recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR complex. T cell activation through the antigen receptor (TCR) involves the cytoplasmic tails of the CD3 subunits CD3 gamma, CD3 delta, CD3 epsilon and CD3 zeta. These CD3 subunits are structurally related members of the immunoglobulins super family encoded by closely linked genes on human chromosome 11. The CD3 components have long cytoplasmic tails that associate with cytoplasmic signal transduction molecules. This association is mediated at least in part by a double tyrosine-based motif present in a single copy in the CD3 subunits. CD3 may play a role in TCR-induced growth arrest, cell survival and proliferation.

The CD3 antigen is present on 68-82% of normal peripheral blood lymphocytes, 65-85% of thymocytes and Purkinje cells in the cerebellum. It is never expressed on B or NK cells. Decreased percentages of T lymphocytes may be observed in some autoimmune diseases.

**Warning:** Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop.

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