

T4-173-T025

## Monoclonal Antibody to CD3 APC-Cy™7 conjugated (25 tests)

Clone: SK7

**Isotype:** Mouse IgG1

Specificity: The mouse monoclonal antibody SK7 recognizes the CD3 antigen of the TCR/CD3

complex on mature human T cells. This antibody reacts with the epsilon chain of the CD3 complex. The monoclonal antibodies SK7 and UCHT1 recognize

overlapping epitopes. HLDA II; WS Code T118 HLDA III; WS Code T492

Regulatory Status: RUO

Immunogen: Human thymocytes

Species Reactivity: Human, Non-Human Primates

**Preparation:** The purified antibody is conjugated with tandem dye APC-Cy<sup>™</sup>7 under optimum

conditions. The conjugate is purified by size-exclusion chromatography and

adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution

containing 15mM sodium azide.

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not

use after expiration date stamped on vial label.

**Usage:** The reagent is designed for Flow Cytometry analysis of human blood cells using 4

μl reagent / 100 μl of whole blood or 10° cells in a suspension.

The content of a vial (0.1 ml) is sufficient for 25 tests.

Expiration: See vial label

Lot Number: See vial label

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.



## PRODUCT DATA SHEET

## References:

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\*Li B, Wang H, Dai J, Ji J, Qian W, Zhang D, Hou S, Guo Y: Construction and characterization of a humanized anti-human CD3 monoclonal antibody 12F6 with effective immunoregulation functions. Immunology. 2005 Dec;116(4):487-98.

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\*Guttman-Yassky E, Vugmeyster Y, Lowes MA, Chamian F, Kikuchi T, Kagen M, Gilleaudeau P, Lee E, Hunte B, Howell K, Dummer W, Bodary SC, Krueger JG: Blockade of CD11a by efalizumab in psoriasis patients induces a unique state of T-cell hyporesponsiveness. J Invest Dermatol. 2008 May;128(5):1182-91.

\*Qiao D, Li L, Guo J, Lao S, Zhang X, Zhang J, Wu C: Mycobacterium tuberculosis culture filtrate protein 10-specific effector/memory CD4⁺ and CD8⁺ T cells in tubercular pleural fluid, with biased usage of T cell receptor Vβ chains. Infect Immun. 2011 Aug;79(8):3358-65.

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