

Monoclonal Antibody to CD3 - PE

Alternate names: T-cell surface antigen T3/Leu-4, T-cell surface glycoprotein CD3, T3/Leu-4

Catalog No.: SM003RT

Quantity: 25 Tests

Background: 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.

Uniprot ID: P22646

NCBI: <u>NP_031674.1</u>

GenelD: <u>12501</u>

Host / Isotype: Rat / IgG2a

Clone: KT3

Immunogen: Spleen cells from immunised SD rats were fused with cells of the NSO mouse myeloma cell

line.

Format: State: Lyophilized purified IgG fraction.

Purification: Affinity Chromatography on Protein A

 $\textbf{Buffer System:} \ \mathsf{PBS}, \ \mathsf{pH}\ \mathsf{7.4}\ \mathsf{containing}\ \mathsf{0.09\%}\ \mathsf{Sodium}\ \mathsf{Azide}\ \mathsf{as}\ \mathsf{preservative}\ \mathsf{and}\ \mathsf{1\%}\ \mathsf{BSA}\ \mathsf{as}$

stabilizer

Label: PE - R. Phycoerythrin (RPE)

Reconstitution: Restore in 0.25 ml disilled water

Applications: Flow Cytometry: Use 10 µl of neat antibody to label 10e6 cells. For optimal staining

incubations should be performed at room temperature; The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors.

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.

Specificity: This antibody recognises the CD3 antigen which is expressed by mature T cells.

Species: Mouse.

Other species not tested.



SM003RT: Monoclonal Antibody to CD3 - PE

Storage:

Store the antibody undiluted at 2-8°C.

DO NOT FREEZE!

This product is photosensitive and should be protected from light.

Shelf life: one year from despatch.

General References: 1. Tomonari, K. (1988) T-cell receptor-specific monoclonal antibodies against a V beta

11-positive mouse T-cell clone. Immunogenetics 28: 455-458.

2. Lacroix-Lamande, S. et al. (2002). Role of gamma interferon in chemokine expression in the ileum of mice and in a murine intestinal cell line after Cryptosporidium parvum

infection. Infect. Immun. 70(4): 2090-2099.