

Product datasheet for **SM003P**

Cd3e Rat Monoclonal Antibody [Clone ID: KT3]

Product data:

Product Type:	Primary Antibodies
Clone Name:	KT3
Applications:	FC, IHC
Recommended Dilution:	Flow Cytometry: 1/100, use 10 µl of the suggested working dilution to label 1x10 ⁶ cells, stain cells at room temperature. Immunohistochemistry on frozen sections.
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Spleen cells from immunised SD rats were fused with cells of the NSO mouse myeloma cell line.
Specificity:	This antibody recognises the CD3 antigen, which is expressed by mature T cells. The antibody may be used to trigger proliferation and cytotoxicity of CD3 positive cells.
Formulation:	PBS, pH7.4 containing 0.09% Sodium Azide State: Purified State: Liquid purified IgG
Concentration:	lot specific
Purification:	Affinity chromatography on Protein G
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD3 antigen, epsilon polypeptide
Database Link:	Entrez Gene 12501 Mouse P22646



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Background:

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.

Synonyms:

T3/Leu-4