

## Product datasheet for **SM253F**

### Cd3d Mouse Monoclonal Antibody [Clone ID: 1F4]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	1F4
Applications:	FC
Recommended Dilution:	Flow cytometry: Use 10 µl of Neat antibody to label 10e6 cells in 100 µl. Functionally the addition of the antibody to a culture of rat T cells induces the proliferation of T-cells in the presence of PMA (2). We recommend antibody SM253A for this purpose.
Reactivity:	Rat
Host:	Mouse
Isotype:	IgM
Clonality:	Monoclonal
Immunogen:	F344 rat T cells stimulated with PMA (TPA) and calcium ionophore.
Specificity:	SM253F recognises rat CD3, a 25 kD antigen which is found on rat T cells. SM253F does not react with rat B cells.
Formulation:	PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer. Label: FITC State: Liquid purified IgM fraction. Label: Fluorescein Isothiocyanate Isomer 1
Concentration:	lot specific
Conjugation:	FITC
Storage:	Store the antibody undiluted at 2-8°C or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	CD3d molecule
Database Link:	<a href="#">Entrez Gene 25710 Rat P19377</a>



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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:**

CD3D, T3D