

Product datasheet for **SM1057F**

CD3E Mouse Monoclonal Antibody [Clone ID: UCHT1]

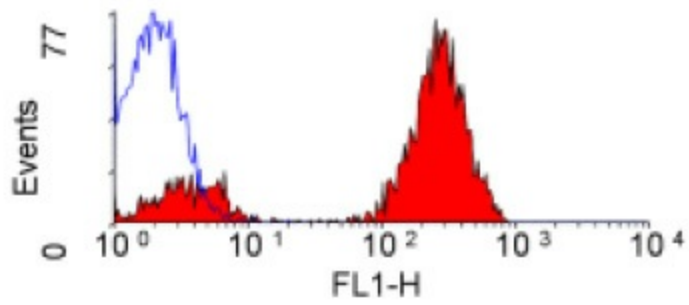
Product data:

Product Type:	Primary Antibodies
Clone Name:	UCHT1
Applications:	FC
Recommended Dilution:	Flow Cytometry: Use 10 µl of 1/10 diluted antibody to label 1 ⁰ cells or 100 µl of lysed whole peripheral blood.
Reactivity:	Human, Primate
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human infant thymocytes and lymphocytes from a patient with Sezary Syndrome. Spleen cells from immunised BALB/c mice were fused with cells of the P3/NS1/1-Ag4-1 mouse myeloma cell line.



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Specificity:	<p>This antibody recognizes a surface protein of peripheral blood T cells of molecular weight 19kD. As a pan T cell marker this antibody is present on more than 95% of circulating human peripheral T cells.</p> <p>This antibody, clone UCHT1 recognizes the Human T-cell surface glycoprotein CD3 epsilon chain, also known as T-cell surface antigen T3/Leu-4 epsilon chain or CD3ϵ. CD3ϵ is a 207 amino acid, ~21kDa single pass type 1 transmembrane protein containing a single Ig-like and a single ITAM domain. This CD3 antibody, clone UCHT1 was originally described as only binding to CD3ϵ when complexed with either the CD3ϵ or CD3ζ subunits, as indicated by co-transfection immunofluorescence studies on COS cells (<i>Salmerón et al.</i> 1991).</p> <p>This CD3 antibody, clone UCHT1 binds to a region in the ectodomain of Human CD3ϵ and has been shown to bind to a discontinuous epitope near an acidic region of CD3ϵ opposite the dimer interface; as shown by crystallographic studies of the CD3ϵ/ζ dimer complexed with a single chain UCHT1 antibody fragment (<i>Arnett et al.</i> 2004).</p> <p>CD3 is expressed by all T lymphocytes and is seen in all lymphoid organs including lymph nodes and spleen. It is involved in thymocyte differentiation (<i>Brodeur et al.</i> 2009). Deficiency of the CD3ϵ chain contributes to blocking T-cell development and presentation of a severe combined immunodeficiency phenotype (<i>Fischer et al.</i> 2005). This antibody, clone UCHT1 has been used successfully for the activation of Human peripheral blood lymphocytes by cross linking and subsequently for CD3ϵ surface expression by flow cytometry (<i>Hirsh and Cohen</i> 2006).</p>
Formulation:	<p>PBS Label: FITC State: Liquid purified IgG fraction from tissue culture supernatant Stabilizer: 1% BSA Preservative: 0.09% Sodium Azide Label: Fluorescein Isothiocyanate Isomer 1</p>
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G
Conjugation:	FITC
Storage:	<p>Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing.</p>
Stability:	Shelf life: one year from despatch.
Gene Name:	CD3e molecule
Database Link:	Entrez Gene 916 Human P07766
Background:	CD3 is a surface protein of peripheral blood T cells of molecular weight 19 kD. The pan T cell marker is present on more than 95% of circulating human peripheral T cells.
Synonyms:	T3/Leu-4

Product images:

staining of human peripheral blood lymphocytes.