

Datasheet: 4C005

Description:	FOUR-COLOR HUMAN CD45RA/CD45RO/CD8/CD3 FLOW KIT
Specificity:	CD45RA/CD45RO/CD8/CD3
Format:	4 Color
Product Type:	Four Color Reagent
Clone:	F8-11-13 / UCHL1 / LT8 / UCHT1
Isotype:	Cocktail
Quantity:	50 TESTS/0.5ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species

Human

Product Form

Four color combination consisting of FITC, RPE, APC and RPE-Cy5.5 conjugated monoclonal antibodies mixed in optimal ratio - lyophilised.

FITC conjugated CD45RA (Mouse IgG1)
 RPE conjugated CD45RO (Mouse IgG2a)
 APC conjugated CD8 (Mouse IgG1)
 RPE-Cy5.5 conjugated CD3 (Mouse IgG1)

Reconstitution

Reconstitute with 0.5ml distilled water

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	APC	650	661
	FITC	490	525
	RPE 488nm laser	496	578
	RPE 561nm laser	546	578
	RPE-Cy5.5 488nm laser	496	695
	RPE-Cy5.5 561nm laser	546	695

Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide (NaN ₃)
Stabilisers	1% Bovine Serum Albumin 5% Sucrose
External Database Links	<p>UniProt:</p> <p>P08575 Related reagents</p> <p>P07766 Related reagents</p> <p>P01732 Related reagents</p> <p>Entrez Gene:</p> <p>5788 PTPRC Related reagents</p> <p>916 CD3E Related reagents</p> <p>925 CD8A Related reagents</p>
Synonyms	CD45, MAL, T3E
Specificity	<p>Four-Color Human CD45RA/CD45RO/CD8/CD3 Flow Kit can be used for single-step identification of human cytotoxic naïve (CD3+CD8+CD45RA+) and cytotoxic memory (CD3+CD8+CD45RO+) T-cell subsets.</p> <p>CD3 is a member of the immunoglobulin superfamily, which acts as a mediator of signal transduction, through association with the α/β or γ/δ T-cell receptor (TCR). Mammalian CD3 is a multimeric protein composed of four distinct polypeptide chains (ϵ, γ, δ, ζ), consisting of two heterodimers ($\epsilon\gamma$, $\epsilon\delta$) and one homodimer ($\zeta\zeta$). CD3 is expressed by a high-percentage of circulating peripheral T-cells and is considered a pan T-cell marker. Clone UCHT1 specifically recognizes the ~20 kDa CD3ϵ chain.</p> <p>CD8 is a cell surface glycoprotein which acts as a co-receptor for MHC Class I, in conjunction with the T-cell receptor (TCR). CD8 exists as a dimer, composed of two α chains or more commonly as an $\alpha\beta$ heterodimer. The CD8 antigen is expressed on the human cytotoxic T-cell subset (CD3+CD8+) and on a subset of NK cells. Binding of CD8 to MHC class I, acts to enhance resting T-cell activation. Clone LT8 is specific for the CD8α chain.</p> <p>CD45RA is an isoform of CD45, a member of the protein tyrosine phosphatase family, otherwise known as leucocyte common antigen (LCA), which acts as a positive regulator of T-cell co-activation, and is essential for the activation of T-cells through the antigen receptor. CD45RA is expressed by naïve T-cells, but not by activated and memory T-cells. Consequently, clone F8-11-13 can be used to distinguish between these cell populations.</p> <p>CD45RO is the low molecular weight isoform (~180 kDa) of CD45, the leucocyte common antigen (LCA). CD45RO is expressed by approximately 40% of resting peripheral blood T-cells, the majority of activated and memory T-cells and most thymocytes. It is also expressed on macrophages, monocytes and granulocytes. In combination with clone</p>

F8-11-13, clone UCHL1 can be used to discern naïve and memory T-cells.

Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
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Storage	Prior to reconstitution store at +4°C. After reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
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Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #20487 available at: 20487: https://www.bio-rad-antibodies.com/uploads/MSDS/20487.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Useful Reagents

[ERYTHROLYSE RED BLOOD CELL LYSING BUFFER \(10x\) \(BUF04B\)](#)

[ERYTHROLYSE RED BLOOD CELL LYSING BUFFER \(10x\) \(BUF04C\)](#)

[FLOW CYTOMETRY ABSOLUTE COUNT STANDARD™ \(FCSC580\)](#)

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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