Datasheet: 4C008

Description:	FOUR-COLOR HUMAN CD3/CD8/CD45/CD4 FLOW KIT
Specificity:	CD3/CD8/CD45/CD4
Format:	4 Color
Product Type:	Four Color Reagent
Clone:	UCHT1 / LT8 / F10-89-4 / RPA-T4
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 RPE-Cy5.5, APC, RPE and FITC conjugated monoclonal antibodies mixed in optimal ratio - lyophilised.

RPE-Cy5.5 conjugated CD3 (Mouse IgG1)
APC conjugated CD8 (Mouse IgG1)
RPE conjugated CD45 (Mouse IgG2a)
FITC conjugated CD4 (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 Stabilisers

0.09% Sodium Azide (NaN_3)
1% Bovine Serum Albumin
5% Sucrose

External Database Links	**UniProt:** P08575 Related reagents P07766 Related reagents P01732 Related reagents P01730 Related reagents **Entrez Gene:** 5788 PTPRC Related reagents 916 CD3E Related reagents 920 CD4 Related reagents 925 CD8A Related reagents
Synonyms	CD45, MAL, T3E
Specificity	**Four-Color Human CD3/CD8/CD45/CD4 Flow Kit** can be used for single-step identification of human mature T-cells (CD3+), helper/inducer (CD3+CD4+) T-cell subsets and suppressor/cytotoxic (CD3+CD8+) T-cell subsets. CD45 is a ~180-240kDa complex glycoprotein and member of the protein-tyrosine phosphatase family, otherwise known as leucocyte common antigen (LCA), and is expressed on all haematopoietic cells with the exception of mature erythrocytes and platelets. CD45 is a complex molecule existing in a number of isoforms including CD45RA and CD45RO. Clone F10-89-4 reacts with all isoforms. 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 (εγ, εδ) and one homodimer (ζζ). 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 &#a26;20kDa CD3ε chain. CD4 is a single chain transmembrane glycoprotein and member of the immunoglobulin superfamily, which interacts directly with class II molecules of the major histocompatibility complex (MHCII), and is the primary receptor for the human immunodeficiency virus (HIV). CD4 is expressed by the helper/inducer (CD3+CD4+) T-cell subset, the majority of thymocytes, and at low levels by monocytes and tissue macrophages. The CD4 lymphocyte count provides an excellent indication of immune system health. Clone RPA-T4 binds to the D1 domain (CDR1 and CDR3 epitopes) of the CD4 antigen. 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 αβ heterodimer. The CD8 antigen is expressed on the human suppressor/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.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul.
Storage	Prior to reconstitution store at +4^{o}C. After reconstitution store at +4^{o}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.
Shelf Life	12 months from date of reconstitution.
Health And Safety Information	Material Safety Datasheet documentation #10075 available at: 10075: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf
Regulatory	For research purposes only

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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