

Datasheet: 4C007

Description:	FOUR-COLOR HUMAN CD3/CD16+CD56/CD45/CD19 FLOW KIT
Specificity:	CD3/CD16/CD56/CD45/CD19
Format:	4 Color
Product Type:	Four Color Reagent
Clone:	UCHT1 / LNK16 / MEM-188 / F10-89-4 / LT19
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 PERCP, FITC, RPE and APC conjugated monoclonal antibodies mixed in optimal ratio - lyophilised.

PERCP conjugated CD3 (Mouse IgG1)
 FITC conjugated CD16/CD56 (Mouse IgG1, IgG2a)
 RPE conjugated CD45 (Mouse IgG2a)
 APC conjugated CD19 (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
PerCP	490	675
RPE 488nm laser	496	578
RPE 561nm laser	546	578

Buffer Solution

Phosphate buffered saline

Preservative

0.09% Sodium Azide

Stabilisers

1% Bovine Serum Albumin
 5% Sucrose

**External Database
Links**

UniProt:

[P08575](#) [Related reagents](#)
[P07766](#) [Related reagents](#)
[O75015](#) [Related reagents](#)
[P08637](#) [Related reagents](#)
[P13591](#) [Related reagents](#)
[P15391](#) [Related reagents](#)

Entrez Gene:

[5788](#) PTPRC [Related reagents](#)
[916](#) CD3E [Related reagents](#)
[930](#) CD19 [Related reagents](#)
[2214](#) FCGR3A [Related reagents](#)
[2215](#) FCGR3B [Related reagents](#)
[4684](#) NCAM1 [Related reagents](#)

Synonyms

CD16A, CD16B, CD45, FCG3, FCGR3, IGFR3, NCAM, T3E

Specificity

Four-Color Human CD3/CD16+CD56/CD45/CD19 Flow Kit can be used for single-step identification of T-cells (CD3+), B-cells (CD3-CD19+) and NK cells (CD3-CD16+ and/or CD56+), useful in the study of NK-mediated cytotoxicity against malignant and virally infected cells and the characterization and monitoring of immunodeficiency and autoimmune diseases. CD45 is a 180-240 kDa 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 , θ), consisting of two heterodimers ($\epsilon\gamma$, $\epsilon\delta$) and one homodimer ($\theta\theta$). 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 CD3 ϵ chain. CD19 is a member of the immunoglobulin super family, which acts as a critical signal transduction molecule and regulator of B-cell development, differentiation and activation. CD19 is expressed on follicular dendritic cells and B-cells, from earliest recognizable B-lineage cells to B-cell blasts, but is lost on maturation to plasma cells. As such, CD19 is a commonly used pan B-cell marker. CD16/CD56, used in combination, facilitate the identification of natural killer (NK) cell sub-populations which express CD16+/CD56+, CD16+/CD56- or CD16-/CD56+ but lack CD3 and T-cell receptor (TCR) expression. There are important functional differences between these NK cell subsets. CD16-/CD56+(bright) cells, a minority in peripheral blood but representing the majority of NK cells in secondary lymphoid tissues, exhibit a high cytokine production capacity but are less effective at mediating antibody-dependent cellular cytotoxicity (ADCC) and natural NK cytotoxicity than other subsets.

Flow Cytometry

Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.

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.

Guarantee 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

[FLOW CYTOMETRY ABSOLUTE COUNT STANDARD™ \(FCSC580\)](#)
[ERYTHROLYSE RED BLOOD CELL LYSING BUFFER \(10x\) \(BUF04B\)](#)
[ERYTHROLYSE RED BLOOD CELL LYSING BUFFER \(10x\) \(BUF04C\)](#)
[HUMAN SEROBLOCK \(BUF070A\)](#)
[HUMAN SEROBLOCK \(BUF070B\)](#)

North & South America Tel: +1 800 265 7376
Fax: +1 919 878 3751

Email: antibody_sales_us@bio-rad.com

Worldwide

Tel: +44 (0)1865 852 700
Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com

Europe

Tel: +49 (0) 89 8090 95 21
Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_de@bio-rad.com

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