



## 人 T/B/NK 细胞流式检测试剂盒

Human T/B/NK subset Kit (CD3 FITC/CD16+56 PE/CD45 PerCP/ CD19 APC/CD4 PE-Cy7/CD8 APC-Cy7 )

**Catalog No.: BFK004**

**Size: 25T / 50T / 100T**

**Storage: Store between 2°C and 8°C for one year. Avoid repeated freeze/thaw cycles.**

### Materials Provided:

Cat No.	Product	25T	50T	100T
BFK003-1	FITC anti-human CD3	0.25ml	0.5ml	1ml
BFK003-2	PE anti-human CD56	0.25ml	0.5ml	1ml
BFK003-3	PE anti-human CD16	0.25ml	0.5ml	1ml
BFK003-4	PerCP anti-human CD45	0.25ml	0.5ml	1ml
BFK003-5	APC anti-human CD19	0.25ml	0.5ml	1ml
BFK004-1	PE-Cy7 anti-human CD4	0.25ml	0.5ml	1ml
BFK004-2	APC-Cy7 anti-human CD8a	0.25ml	0.5ml	1ml
BFK003-6	FITC mouse IgG1, κ Isotype Control	0.1ml	0.1ml	0.1ml
BFK003-7	PE mouse IgG1, κ Isotype Control	0.1ml	0.1ml	0.1ml
BFK003-8	PerCP mouse IgG2a Isotype Control	0.1ml	0.1ml	0.1ml
BFK003-9	APC mouse IgG1 Isotype Control	0.1ml	0.1ml	0.1ml
BFK004-3	PE-Cy7 mouse IgG2a Isotype Control	0.1ml	0.1ml	0.1ml
BFK004-4	APC-Cy7 mouse IgG1, κ Isotype Control	0.1ml	0.1ml	0.1ml

### Description:

Total T lymphocyte percentages can be used to characterize some forms of immunodeficiency and autoimmune diseases. Determining percentages of CD4+ and CD8+ lymphocytes can be useful in monitoring the immune status of patients with immune deficiency diseases, autoimmune diseases, or immune reactions. The relative percentage of the CD4+ subset has been reported to be depressed

and the relative percentage of the CD8+ subset to be elevated in many patients .

Helper/inducer T lymphocytes are a subset of T (CD3+) lymphocytes that also express the CD4 antigen. Suppressor/cytotoxic T lymphocytes express the CD8 antigen and are principally a subset of T (CD3+) lymphocytes. The CD4+/CD8+ lymphocyte ratio can be quantified as the ratio of CD4 FITC–positive lymphocytes to CD8 PE–positive lymphocytes. The most common method that has been used to determine the CD4/CD8 ratio has been a single twocolor reagent containing CD4 and CD8 antibodies. The CD4+/CD8+ ratio has been used to evaluate the immune status of patients with autoimmune disorders or those suspected of developing immune disorders.

The conventional helper/suppressor ratio (CD4/CD8) does not distinguish between T- and NK-lymphocyte CD8 antigen expression, or between helper/inducer T lymphocytes and monocytes that express the CD4 antigen in low copy numbers. The reagent combinations provided in the kit allow the CD3+CD4+ helper/inducer T lymphocytes and CD3+CD8+ suppressor/cytotoxic T lymphocytes to be identified and enumerated separately from contaminating CD3– CD4+ monocytes and CD3–CD8+ NK lymphocytes.<sup>22</sup> Instead of using a single reagent containing CD4 and CD8.

NK lymphocytes, identified as being CD3–, CD16+ and/or CD56+ have been shown to mediate cytotoxicity against certain tumors and virus-infected target cells.

CD19 is involved in B cell development. B Cells which is characterized by CD3–, CD19+ .

#### **Experimental Methods:**

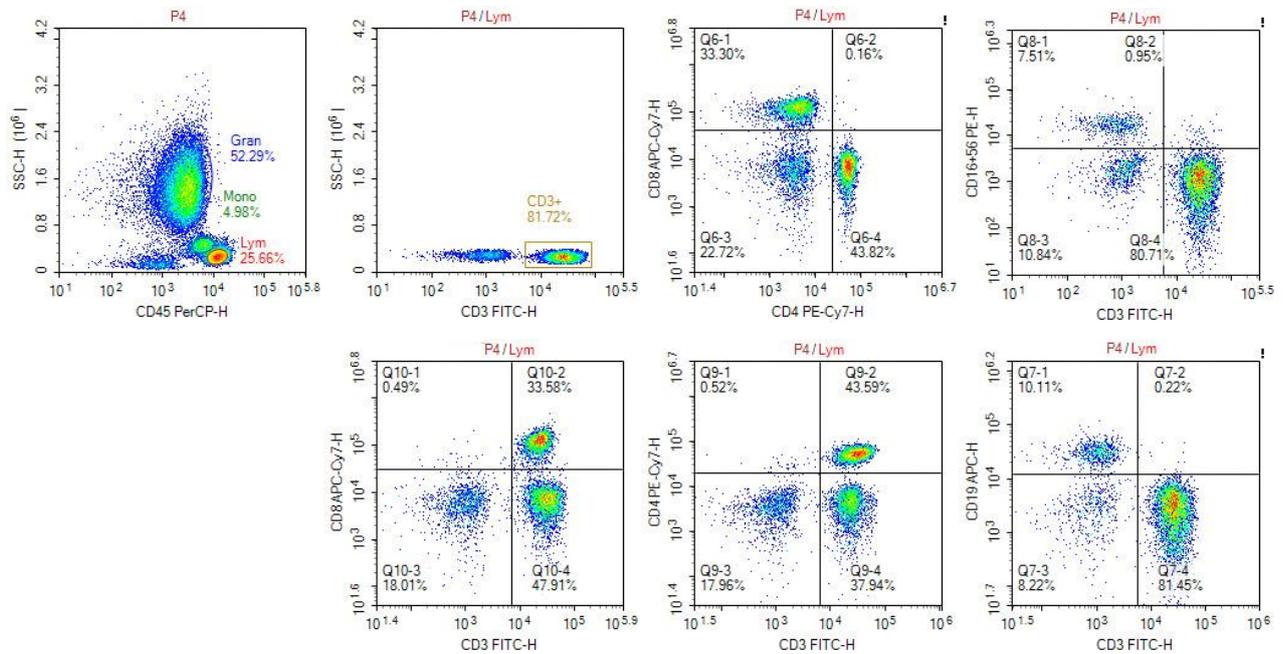
***(The following is a general protocol, optimization is required for best results of your experiment.***

***Please contact us by email or by phone for further technical support.)***

1. Take 100µl peripheral blood anticoagulated by EDTA and add to the bottom of 5ml tube;
2. Add 10µl FITC anti-human CD3, 10µl PE anti-human CD56, 10µl PE anti-human CD16, 10µl PerCP anti-human CD45, 10µl PE-Cy7 anti-human CD4, 10µl APC anti-human CD19 and 10µl APC-Cy7 anti-human CD8a to the bottom of flow tube mixing with the peripheral blood, incubate for 20 minutes at room temperature away from light;
3. Add 2ml 1×RBC lysis buffer, incubate for 10 minutes away from light after mixing, dissolve red blood cells (recommended: Red Blood Cell Lysis Buffer, 10× (C03-05002));
4. Sample tube is set to 1000 rpm centrifugation for 5 minutes, discard the supernatant;
5. Add 2ml PBS to resuspend the cells, then 1000 rpm centrifugation for 5 minutes, discard the supernatant;

- Add 0.5ml PBS to resuspend the cells and detect by flow cytometry (sample should be determined on the day on the machine and can also be added fixation overnight at 4°C then measured).

**Experimental Data:**



Human healthy peripheral blood were stained with CD3 FITC/CD16+56 PE/CD45 PerCP/CD4 PE-Cy7/CD19 APC/CD8 APC Cy7.