






Multicolor cocktails TBNK



			
FITC/PE/PerCP/APC	TBNIK1	50 test	
FITC/ PE-Cyanine7/ APC-C750/ PE/ PerCp-Cyanine5.5/ APC	TBNIK2	50 test	

1. PRODUCT DESCRIPTION

**Tested application:** flow cytometry  
**Species reactivity:** Human  
**Storage instruction:** store in the dark at 2-8 °C  
**Storage buffer:** aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN 3 ).  
**Recommended usage:** TBNIK reagent panel, which includes the combinations CD3 FITC / CD4 PE- Cyanine7 / CD8 APC- Cyanine7 / (CD16+CD56) PE /CD45 PerCP-Cy5.5 / CD19 APC and CD3 FITC / (CD16+CD56) PE / CD45 PerCP / CD19 APC, is intended for in vitro diagnostic use for the qualitative identification of major lymphocyte subsets – T cells (CD3, CD4, CD8), B cells (CD19), and NK cells (CD16+CD56) – in human peripheral blood samples by flow cytometry.  
This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 10 6 cells.  
**Presentation:** liquid  
**Source:** Supernatant proceeding from an in vitro cell culture of a cell hybridoma.  
**Purification:** Affinity chromatography.

Reagent Composition

ANTIBODY	FLUOROCROME	CLONE	ISOTYPE
CD3 -----	FITC -----	33-2A3 -----	IgG2A
CD16-----	PE -----	3G8 -----	IgG1
CD56-----	PE -----	B-A19 -----	IgG1
CD4-----	PE/Cyanine7 -----	SK3-----	IgG1
CD45-----	PerCP/Cyanine5.5-----	D3/9 -----	IgG1
CD19-----	APC-----	A3-B1-----	IgG2a
CD8-----	APC/C750™ -----	I43-44-----	IgG1

2. ANTIGEN DETAILS

CD3 (clone 33-2A3) recognizes the ε-chain of the CD3/TCR complex, which is expressed on all mature T lymphocytes. This antigen is a defining marker of the T-cell lineage and is essential for T-cell receptor signaling. CD3 expression is absent on B cells, NK cells, and other leukocyte subsets, allowing for specific identification of T cells by flow cytometry.

CD4 (clone SK3) identifies a glycoprotein expressed predominantly on helper/inducer T lymphocytes. CD4 acts as a co-receptor for MHC class II molecules and plays a central role in T-cell activation and immune regulation. It is also found at low levels on monocytes.

CD8 (clone I43-44) recognizes a cell surface glycoprotein that interacts with MHC class I molecules. It is expressed mainly on cytotoxic/suppressor T lymphocytes and a subset of NK cells. CD8 enhances adhesion to target cells and contributes to T-cell activation.

CD16 (clone 3G8) binds to the low-affinity FcγRIII receptor for IgG, which is present on NK cells, neutrophils, and some monocyte subsets. It is widely used to identify NK cells in combination with CD56, although it can also label granulocytes.

CD56 (clone B-A19) targets the neural cell adhesion molecule (NCAM), which is expressed on natural killer (NK) cells and a subset of T lymphocytes (CD3+ CD56+ NKT-like cells). CD56 is essential for the identification of NK populations in peripheral blood.

CD45 (clone D3/9) binds to all isoforms of the leukocyte common antigen (LCA), which is present on all human leukocytes, including lymphocytes, monocytes, granulocytes, eosinophils, and basophils.

CD45 is used to distinguish leukocytes from non-hematopoietic cells and debris.

CD19 (clone A3-B1) recognizes a transmembrane protein expressed throughout B cell development, excluding plasma cells. It is a pan-B cell marker that does not react with T cells, monocytes, or granulocytes, allowing for specific detection of B lymphocytes.

Please, refer to [www.immunostep.com](http://www.immunostep.com) technical support for more information.








3. WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties. Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

4. REFERENCES

- de Vries E, Koene HR, Vossen JM, Gratama JW, von dem Borne AE, Waaijer JL, Haraldsson A, de Haas M, van Tol MJ. Identification of an unusual Fc gamma receptor IIIa (CD16) on natural killer cells in a patient with recurrent infections. Blood. 1996 Oct 15
- Blumberg RS, Ley S, Sancho J, Lonberg N, Lacy E, McDermott F, Schad V, Greenstein JL, Terhorst C. Structure of the T-cell antigen receptor: evidence for two CD3 epsilon subunits in the T-cell receptor-CD3 complex. Proc Natl Acad Sci U S A. 1990 Sep;87(18)
- Guan F, Wang X, He F. Promotion of cell migration by neural cell adhesion molecule (NCAM) is enhanced by PSA in a polysialyltransferase-specific manner. PLoS One. 2015 Apr 17
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5. EXPLANATION OF SYMBOLS

	Form
	Catalog reference
	Contains sufficient for <n> test
	Quantity per test
	Regulatory Status
	Research Use Only
	Manufacturer

6. MANUFACTURED BY:



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