

# CD3 Monoclonal Antibody (SK7), PerCP-Cyanine5.5, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Chimpanzee, Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PerCP-Cyanine5.5, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	SK7
Conjugate	PerCP-Cyanine5.5
Excitation/Emission Max	489/679 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_1518742

Applications	Tested Dilution	Publications
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Flow Cytometry (Flow)	5 µL (0.03 µg)/test	10 Publications

## Product Specific Information

**Description:** The SK7 monoclonal antibody reacts with human and chimpanzee CD3e, a 20 kDa subunit of the TCR complex. Along with the other CD3 subunits gamma and delta, the epsilon chain is required for proper assembly, trafficking and surface expression of the TCR complex. CD3 is expressed by thymocytes in a developmentally regulated manner and by all mature T cells. The SK7 and UCHT1 monoclonal antibodies cross-block binding, suggesting recognition of overlapping epitope. In contrast, clones OKT3 and SK7 see different epitopes.

The antibody SK7 recognizes chimpanzee CD3.

**Applications Reported:** This SK7 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This SK7 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.03 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

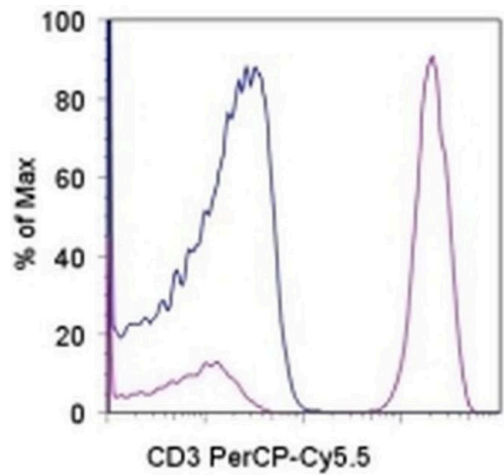
**Light sensitivity:** This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

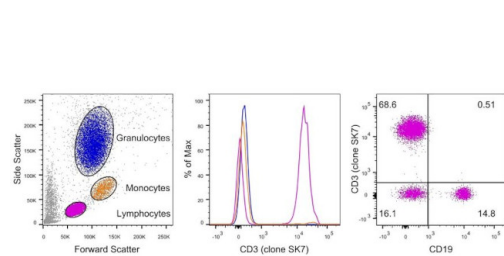
Excitation: 488 nm; Emission: 695 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD3 Monoclonal Antibody (SK7), PerCP-Cyanine5.5, eBioscience™



**CD3 Antibody (45-0036-42) in Flow**  
Staining of normal human peripheral blood cells with Mouse IgG1 K Isotype Control PerCP-Cyanine5-5 (Product # 45-4714-82) (blue histogram) or Anti-Human CD3 PerCP-Cyanine5-5 (purple histogram). Cells in the lymphocyte gate were used for analysis.



**CD3 Antibody (45-0036-42)**  
Staining of human peripheral blood cells. As expected based on known relative expression patterns, CD3 clone SK7 stains a subset of lymphocytes (T cells) and does not stain monocytes and granulocytes (middle plot). Additional analysis of lymphocytes shows that CD3 clone SK7 does not stain any CD19+ B cells (right plot). Details: Normal human whole blood was surface stained with CD3 (clone SK7) and CD19 (clone HIB19). After staining, red blood cells were lysed using 1-step Fix/Lyse Buffer. Cells in the lymphocyte (purple histogram), monocyte (orange histogram), or granulocyte (blue histogram) gates were used to compare CD3 staining (middle plot). Cells in the lymphocyte gate were used to compare CD3 and CD19 staining (right plot). {RE}

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## 11 References

### Immunohistochemistry (Frozen) (1)

The journal of histochemistry and cytochemistry : official journal of the Histochemistry Society

Year  
2009

#### A monoclonal antibody selection for immunohistochemical examination of lymphoid tissues from non-human primates.

Authors: Kap YS, van Meurs M, van Driel N, Koopman G, Melief MJ, Brok HP, Laman JD, 't Hart BA

### Flow Cytometry (10)

Frontiers in pharmacology

Year  
2023

#### Disruption of PD-1 Enhanced the Anti-tumor Activity of Chimeric Antigen Receptor T Cells Against Hepatocellular Carcinoma.

"Published figure using CD3 monoclonal antibody (Product # 45-0036-42) in Flow Cytometry"

Authors: Guo X, Jiang H, Shi B, Zhou M, Zhang H, Shi Z, Du G, Luo H, Wu X, Wang Y, Sun R, Li Z

The Journal of biological chemistry

Year  
2022

#### Ephrin receptor A10 monoclonal antibodies and the derived chimeric antigen receptor T cells exert an antitumor response in mouse models of triple-negative breast cancer.

"Published figure using CD3 monoclonal antibody (Product # 45-0036-42) in Flow Cytometry"

Authors: Cha JH, Chan LC, Wang YN, Chu YY, Wang CH, Lee HH, Xia W, Shyu WC, Liu SP, Yao J, Chang CW, Cheng FR, Liu J, Lim SO, Hsu JL, Yang WH, Hortobagyi GN, Lin C, Yang L, Yu D, Jeng LB, Hung MC

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