

CD3 Monoclonal Antibody (OKT3), PerCP-eFluor™ 710, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human, Mouse
Host/Isotype	Mouse / IgG2a, kappa
Recommended Isotype Control	Mouse IgG2a kappa Isotype Control (eBM2a), PerCP-eFluor™ 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	OKT3
Conjugate	PerCP-eFluor™ 710
Excitation/Emission Max	482/708 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_1834395

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.06 µg)/test	32 Publications
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

Description: The OKT3 monoclonal antibody reacts with an epitope on the epsilon-subunit within the human CD3 complex. The OKT3 antibody has been reported to have potent immunosuppressive properties in vivo and has been proven effective in the treatment of renal, heart and liver allograft rejection. The CD3 subunits, gamma, delta, and epsilon chains, are 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. Crosslinking of TCR initiates an intracellular biochemical pathway resulting in cellular activation and proliferation.

Applications Reported: This OKT3 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This OKT3 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.06 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 10⁵ to 10⁸ cells/test.

PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure that your instrument is capable of detecting this fluorochrome.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL 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.

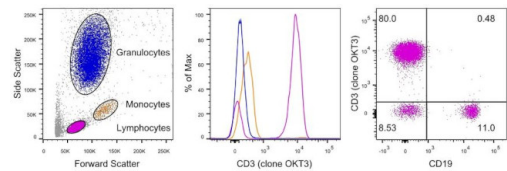
Excitation: 488 nm; Emission: 710 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD3 Monoclonal Antibody (OKT3), PerCP-eFluor™ 710, eBioscience™

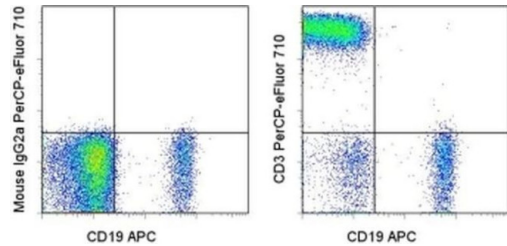
CD3 Antibody (46-0037-42)

Staining of human peripheral blood cells. As expected based on known relative expression patterns, CD3 clone OKT3 stains a subset of lymphocytes (T cells) and does not stain monocytes and granulocytes (middle plot). Additional analysis of lymphocytes shows that CD3 clone OKT3 does not stain any CD19+ B cells (right plot). Details: Normal human whole blood was surface stained with CD3 (clone OKT3) 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}



CD3 Antibody (46-0037-42) in Flow

Staining of normal human peripheral blood cells with Anti-Human CD19 APC (Product # 17-0199-42) and Mouse IgG2a K Isotype Control PerCP-eFluor® 710 (Product # 46-4724-82) (left) or Anti-Human CD3 PerCP-eFluor® 710 (right). Cells in the lymphocyte gate were used for analysis.



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Flow Cytometry (32)

<p>iScience</p> <p>Attenuated humoral responses in HIV after SARS-CoV-2 vaccination linked to B cell defects and altered immune profiles.</p> <p>"46-0037-42 was used in Flow cytometry/Cell sorting to observe that people living with human immunodeficiency virus (PLWH) had significantly lower neutralizing antibody (nAb) titers than HIV-negative controls."</p> <p>Authors: Touizer E,Alrubayyi A,Ford R,Hussain N,Gerber PP,Shum HL,Rees-Spear C,Muir L,Gea-Mallorquí E, Kopycinski J,Jankovic D,Jeffery-Smith A,Pinder CL,Fox TA,Williams I,Mullender C,Maan I,Waters L,Johnson M,Madge S,Youle M,Barber TJ,Burns F,Kinloch S,Rowland-Jones S,Gilson R,Matheson NJ,Morris E,Peppia D,McCoy LE</p>	<p>Year 2023</p> <p>Species Human</p>
<p>Cancer immunology research</p> <p>Holistic Characterization of Tumor Monocyte-to-Macrophage Differentiation Integrates Distinct Immune Phenotypes in Kidney Cancer.</p> <p>"46-0037-42 was used in Flow cytometry/Cell sorting to show that holistic analysis of monocyte-to-macrophage differentiation creates a framework for critically different immune states."</p> <p>Authors: Mujal AM,Combes AJ,Rao AA,Binnewies M,Samad B,Tsui J,Boissonnas A,Pollack JL,Argüello RJ,Meng MV, Porten SP,Ruhland MK,Barry KC,Chan V,Krummel MF</p>	<p>Year 2022</p> <p>Species Human</p>

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Miscellaneous PubMed (1)

<p>eLife</p> <p>Combining genotypes and T cell receptor distributions to infer genetic loci determining V(D)J recombination probabilities.</p> <p>"46-0037-42 was used in Sample Preparation to lay the groundwork for further explorations into how immune responses vary between individuals."</p> <p>Authors: Russell ML,Souquette A,Levine DM,Schattgen SA,Allen EK,Kuan G,Simon N,Balmaseda A,Gordon A,Thomas PG,Matsen FA,Bradley P</p>	<p>Year 2022</p> <p>Species Human</p> <p>Dilution 1:100</p>
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