

# CD3 Monoclonal Antibody (OKT3), eFluor™ 450, 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), eFluor™ 450, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	OKT3
Conjugate	eFluor™ 450
Excitation/Emission Max	405/445 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4°C, store in dark, DO NOT FREEZE!
RRID	AB_1272055

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	2 Publications
Immunocytochemistry (ICC/IF)	-	4 Publications
Flow Cytometry (Flow)	5 µL (1 µg)/test	51 Publications
Functional Assay (Functional)	-	1 Publication
Immunomicroscopy (IM)	-	1 Publication
T-Cell Activation (TCA)	-	5 Publications
Miscellaneous PubMed (Misc)	-	2 Publications

## 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 (1 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  $\mu$ L. Cell number should be determined empirically but can range from  $10^5$  to  $10^8$  cells/test.

eFluor<sup>®</sup> 450 is an alternative to Pacific Blue<sup>®</sup>. eFluor<sup>®</sup> 450 emits at 445 nm and is excited with the Violet laser (405 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

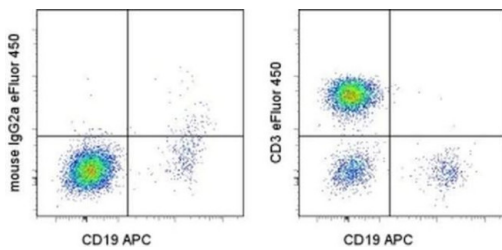
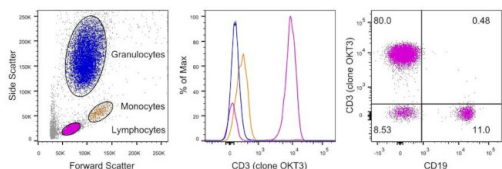
Excitation: 405 nm; Emission: 445 nm; Laser: Violet Laser.

Filtration: 0.2  $\mu$ m post-manufacturing filtered.

## Product Images For CD3 Monoclonal Antibody (OKT3), eFluor<sup>™</sup> 450, eBioscience<sup>™</sup>

### CD3 Antibody (48-0037-42)

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 (48-0037-42) in Flow

Staining of normal human peripheral blood cells with Anti-Human CD19 APC (Product # 17-0199-42) and Mouse IgG2a K Isotype Control eFluor<sup>®</sup> 450 (Product # 48-4724-82) (left) or Anti-Human CD3 eFluor<sup>®</sup> 450 (right). Cells in the lymphocyte gate were used for analysis.

View more figures on [thermofisher.cn](http://thermofisher.cn)

## Immunohistochemistry (2)

Journal of Cancer

### IL-2 enhanced MHC class I expression in papillary thyroid cancer with Hashimoto's thyroiditis overcomes immune escape *in vitro*.

"Published figure using CD3 monoclonal antibody (Product # 48-0037-42) in Immunohistochemistry"

Authors: Hu JQ,Lei BW,Wen D,Ma B,Zhang TT,Lu ZW,Wei WJ,Wang YL,Wang Y,Li DS, Ji QH,Liao T

Year  
2020

PLoS medicine

### Expansion of regulatory T cells in patients with Langerhans cell histiocytosis.

"Published figure using CD3 monoclonal antibody (Product # 48-0037-42) in Immunohistochemistry"

Authors: Senechal B,Elain G,Jeziorski E,Grondin V,Patey-Mariaud de Serre N,Jaubert F,Beldjord K,Lellouch A,Glorion C,Zerah M,Mary P,Barkaoui M,Emile JF,Boccon-Gibod L,Josset P,Debré M,Fischer A,Donadieu J,Geissmann F

Year  
2007

## Immunocytochemistry (4)

Cell reports

### TCR and Inflammatory Signals Tune Human MAIT Cells to Exert Specific Tissue Repair and Effector Functions.

"Published figure using CD3 monoclonal antibody (Product # 48-0037-42) in Immunocytochemistry"

Authors: Leng T,Akther HD,Hackstein CP,Powell K,King T,Friedrich M,Christoforidou Z,McCuaig S,Neyazi M,Arancibia-Cárcamo CV,Hagel J,Powrie F,Peres RS,Millar V,Ebner D,Lamichhane R,Ussher J,Hinks TSC,Marchi E,Willberg C,Klenerman P

Year  
2019

The Journal of clinical investigation

### Astrocytic tight junctions control inflammatory CNS lesion pathogenesis.

"Published figure using CD3 monoclonal antibody (Product # 48-0037-42) in Immunofluorescence"

Authors: Horng S,Therattil A,Moyon S,Gordon A, Kim K,Argaw AT,Hara Y,Mariani JN,Sawai S,Flodby P,Crandall ED, Borok Z,Sofroniew MV,Chapouly C,John GR

Year  
2017

[View more ICC/IF references on thermofisher.cn](#)

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Flow (51)

Functional (1)

IM (1)

TCA (5)

Misc (2)

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