

# CD3 Monoclonal Antibody (UCHT1), APC-eFluor™ 780, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Human, Mouse
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), APC-eFluor™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	UCHT1
Conjugate	APC-eFluor™ 780
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_1272042

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	27 Publications

## Product Specific Information

**Description:** The UCHT1 monoclonal antibody reacts with human 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. Crosslinking of TCR via immobilized UCHT1 initiates an intracellular biochemical pathway resulting in cellular activation and proliferation.

**Applications Reported:** This UCHT1 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** This UCHT1 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.5 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.

APC-eFluor 780 emits at 780 nm and is excited with the Red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorochrome.

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

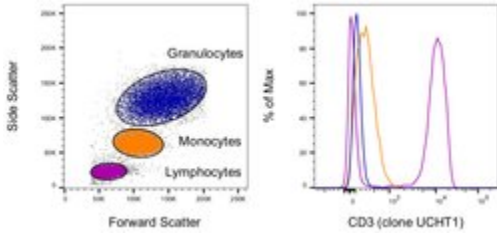
**Fixation:** Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix

/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: 633-647 nm; Emission: 780 nm; Laser: Red Laser.

Filtration: 0.2 µm post-manufacturing filtered.

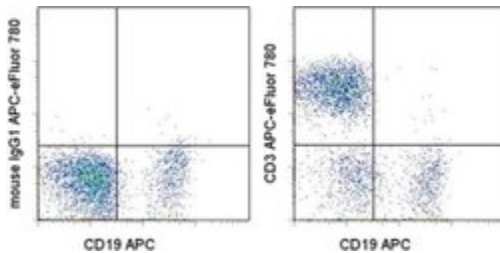
## Advanced Verification Data



### CD3 Antibody (47-0038-42)

Staining of human peripheral blood cells. As expected based on known relative expression patterns, CD3 clone UCHT1 stains a subset of lymphocytes (T cells) and does not stain monocytes and granulocytes. Details: Normal human whole blood was surface stained with CD3 (clone UCHT1). 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 for analysis. Relative expression validation info.

## Product Images For CD3 Monoclonal Antibody (UCHT1), APC-eFluor™ 780, eBioscience™



### CD3 Antibody (47-0038-42) in Flow

Staining of normal human peripheral blood cells with Anti-Human CD19 APC (Product # 17-0199-42) and Mouse IgG1 K Isotype Control APC-eFluor® 780 (Product # 47-4714-82) (left) or Anti-Human CD3 APC-eFluor® 780 (right). Cells in the lymphocyte gate were used for analysis.

## Flow Cytometry (27)

### Oncoimmunology

#### Toll like receptor 7 expressed by malignant cells promotes tumor progression and metastasis through the recruitment of myeloid derived suppressor cells.

"47-0038 was used in Flow cytometry/Cell sorting to identify the role of TLR7 in the recruitment of myeloid derived suppressor cells resulting in accelerated tumor growth and metastasis in lung adenocarcinoma."

Authors: Dajon M,Iribarren K,Petitprez F,Marmier S,Lupo A,Gillard M,Ouakrim H,Victor N,Vincenzo DB,Joubert PE,Kepp O,Kroemer G,Alifano M,Damotte D,Cremer I

**Species**  
Human

**Dilution**  
1:100

**Year**  
2021

### Cell reports

#### Immunotherapeutic Blockade of CD47 Inhibitory Signaling Enhances Innate and Adaptive Immune Responses to Viral Infection.

"47-0038 was used in Flow cytometry/Cell sorting to indicate that CD47 blockade not only enhances the function of innate immune cells but also links to adaptive immune responses through improved APC function."

Authors: Cham LB,Torrez Dulgeroff LB,Tal MC,Adomati T,Li F,Bhat H,Huang A,Lang PA,Moreno ME,Rivera JM,Galkina SA,Kosikova G,Stoddart CA,McCune JM,Myers LM,Weissman IL,Lang KS,Hasenkrug KJ

**Species**  
Mouse

**Dilution**  
Not Cited

**Year**  
2020

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