

PE/Cyanine7 anti-human CD3 Antibody

Catalog# / Size	300419 / 25 tests 300420 / 100 tests
Clone	UCHT1
Regulatory Status	RUO
Workshop	III 471
Other Names	T3, CD3ε
Isotype	Mouse IgG1, κ
Description	CD3ε is a 20 kD chain of the CD3/T-cell receptor (TCR) complex which is composed of two CD3ε, one CD3γ, one CD3δ, one CD3ζ (CD247), and a T-cell receptor (α/β or γ/δ) heterodimer. It is found on all mature T cells, NKT cells, and some thymocytes. CD3, also known as T3, is a member of the immunoglobulin superfamily that plays a role in antigen recognition, signal transduction, and T cell activation.

Product Details

Verified Reactivity	Human
Reported Reactivity	Chimpanzee
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE/Cyanine7 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections ^{4,6,7} and formalin-fixed paraffin-embedded sections ¹¹ , immunoprecipitation ¹ , activation of T cells ^{2,3,5} , Western blotting ⁹ , and spatial biology (IBEX) ^{16,17} . The LEAF™ purified antibody (Endotoxin < 0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 300413, 300414, and 300432). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 300437, 300438, 300465, 300466, 300473, 300474) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin < 0.01 EU/µg).
Additional Product Notes	BioLegend is in the process of converting the name PE/Cy7 to PE/Cyanine7. The dye molecule remains the same, so you should expect the same quality and performance from our PE/Cyanine7 products. Please contact Technical Service if you have any questions.
Application References	<ol style="list-style-type: none"> Salmeron A, <i>et al.</i> 1991. <i>J. Immunol.</i> 147:3047. (IP) Graves J, <i>et al.</i> 1991. <i>J. Immunol.</i> 146:2102. (Activ) Lafont V, <i>et al.</i> 2000. <i>J. Biol. Chem.</i> 275:19282. (Activ)
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RRID

AB_439780 (BioLegend Cat. No. 300419)
 AB_439781 (BioLegend Cat. No. 300420)

Antigen Details

Structure	Ig superfamily, with the subunits of CD3 γ , CD3 δ , CD3 ζ (CD247) and TCR (α/β or γ/δ) forms CD3/TCR complex, 20 kD
Distribution	Mature T and NK T cells, thymocyte differentiation
Function	Antigen recognition, signal transduction, T cell activation
Ligand/Receptor	Peptide antigen bound to MHC
Cell Type	NKT cells, T cells, Thymocytes, Tregs
Biology Area	Immunology, Innate Immunity
Molecular Family	CD Molecules, TCRs
Antigen References	1. Barclay N, <i>et al.</i> 1993. The Leucocyte FactsBook. Academic Press. San Diego. 2. Beverly P, <i>et al.</i> 1981. <i>Eur. J. Immunol.</i> 11:329. 3. Lanier L, <i>et al.</i> 1986. <i>J. Immunol.</i> 137:2501-2507.
Gene ID	916

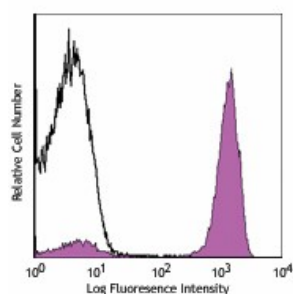
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-human CD3, Biotin anti-human CD3, FITC anti-human CD3, PE anti-human CD3, PE/Cyanine5 anti-human CD3, Purified anti-human CD3, Alexa Fluor® 647 anti-human CD3, Alexa Fluor® 488 anti-human CD3, Pacific Blue™ anti-human CD3, PE/Cyanine7 anti-human CD3, Alexa Fluor® 700 anti-human CD3, APC/Cyanine7 anti-human CD3, PerCP anti-human CD3, PerCP/Cyanine5.5 anti-human CD3, Brilliant Violet 421™ anti-human CD3, Brilliant Violet 570™ anti-human CD3, Ultra-LEAF™ Purified anti-human CD3, Purified anti-human CD3 (Maxpar® Ready), Alexa Fluor® 594 anti-human CD3, PE/Dazzle™ 594 anti-human CD3, Brilliant Violet 510™ anti-human CD3, Brilliant Violet 605™ anti-human CD3, Brilliant Violet 711™ anti-human CD3, Brilliant Violet 650™ anti-human CD3, APC/Fire™ 750 anti-human CD3, Brilliant Violet 785™ anti-human CD3, TotalSeq™-A0034 anti-human CD3, TotalSeq™-B0034 anti-human CD3, TotalSeq™-C0034 anti-human CD3, KIRAVIA Blue 520™ anti-human CD3, Spark Violet™ 538 anti-human CD3 Antibody, TotalSeq™-D0034 anti-human CD3, Spark Blue™ 574 anti-human CD3 Antibody, GMP Pacific Blue™ anti-human CD3, GMP PE anti-human CD3, GMP PE/Dazzle™ 594 anti-human CD3

Product Data



Human peripheral blood lymphocytes stained with UCHT1 PE/Cyanine7 and overlaid with isotype control

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587

