

## Purified anti-human CD3 (Maxpar<sup>®</sup> Ready) Antibody

<b>Catalog# / Size</b>	300443 / 100 µg
<b>Clone</b>	UCHT1
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	III 471
<b>Other Names</b>	T3, CD3ε
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	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

<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	Chimpanzee
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and EDTA.
<b>Preparation</b>	The antibody was purified by affinity chromatography.
<b>Concentration</b>	1.0 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C.
<b>Application</b>	<a href="#">FC - Quality tested</a> <a href="#">CyTOF<sup>®</sup>, PG - Verified</a>
<b>Recommended Usage</b>	This product is suitable for use with the <a href="#">Maxpar<sup>®</sup> Metal Labeling Kits</a> . For metal labeling using Maxpar <sup>®</sup> Ready antibodies, proceed directly to the step to Partially Reduce the Antibody by adding 100 µl of Maxpar <sup>®</sup> Ready antibody to 100 µl of 4 mM TCEP-R in a 50 kDa filter and continue with the protocol. Always refer to the latest version of Maxpar <sup>®</sup> User Guide when conjugating Maxpar <sup>®</sup> Ready antibodies.
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections <sup>4,6,7</sup> and formalin-fixed paraffin-embedded sections <sup>11</sup> , immunoprecipitation <sup>1</sup> , activation of T cells <sup>2,3,5</sup> , Western blotting <sup>9</sup> , and spatial biology (IBEX) <sup>16,17</sup> . 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).
<b>Additional Product Notes</b>	Maxpar <sup>®</sup> is a registered trademark of Standard BioTools Inc.
<b>Application References</b>	<ol style="list-style-type: none"> <li>Salmeron A, <i>et al.</i> 1991. <i>J. Immunol.</i> 147:3047. (IP)</li> <li>Graves J, <i>et al.</i> 1991. <i>J. Immunol.</i> 146:2102. (Activ)</li> <li>Lafont V, <i>et al.</i> 2000. <i>J. Biol. Chem.</i> 275:19282. (Activ)</li> <li>Ryschich E, <i>et al.</i> 2003. <i>Tissue Antigens</i> 62:48. (IHC)</li> <li>Thompson AG, <i>et al.</i> 2004. <i>J. Immunol.</i> 173:1671. (Activ)</li> <li>Sakkas LI, <i>et al.</i> 1998. <i>Clin. Diagn. Lab. Immunol.</i> 5:430. (IHC)</li> <li>Mack CL, <i>et al.</i> 2004. <i>Pediatr. Res.</i> 56:79. (IHC)</li> <li>Thakral D, <i>et al.</i> 2008. <i>J. Immunol.</i> 180:7431. (FC) <a href="#">PubMed</a></li> <li>Van Dongen JJM, <i>et al.</i> 1988. <i>Blood</i> 71:603. (WB)</li> </ol>

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## Product Citations

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**RRID** AB\_2562808 (BioLegend Cat. No. 300443)

## Antigen Details

<b>Structure</b>	Ig superfamily, with the subunits of CD3 $\gamma$ , CD3 $\delta$ , CD3 $\zeta$ (CD247) and TCR ( $\alpha/\beta$ or $\gamma/\delta$ ) forms CD3/TCR complex, 20 kD
<b>Distribution</b>	Mature T and NK T cells, thymocyte differentiation
<b>Function</b>	Antigen recognition, signal transduction, T cell activation
<b>Ligand/Receptor</b>	Peptide antigen bound to MHC
<b>Cell Type</b>	NKT cells, T cells, Thymocytes, Tregs
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	CD Molecules, TCRs
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Barclay N, <i>et al.</i> 1993. <i>The Leucocyte FactsBook.</i> Academic Press. San Diego.</li> <li>2. Beverly P, <i>et al.</i> 1981. <i>Eur. J. Immunol.</i> 11:329.</li> <li>3. Lanier L, <i>et al.</i> 1986. <i>J. Immunol.</i> 137:2501-2507.</li> </ol>
<b>Gene ID</b>	<a href="#">916</a>

## Related Protocols

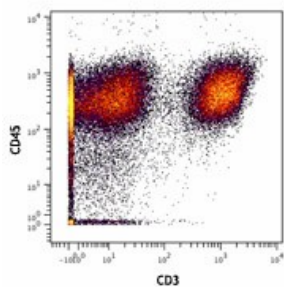
[Cell Surface Flow Cytometry Staining Protocol](#)

## 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

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Human PBMCs stained with 154Sm-anti-CD45 (HI30) and 170Er-anti-CD3 (UCHT1). Data provided by DVS Sciences.

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