

Pacific Blue™ anti-human CD3 Antibody

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| Catalog# / Size | 300418 / 25 µg 300431 / 100 tests 300417 / 100 µg 300442 / 500 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

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| Verified Reactivity | Human |
| Reported Reactivity | Chimpanzee |
| Antibody Type | Monoclonal |
| Host Species | Mouse |
| Formulation | test size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA). µg sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide. |
| Preparation | The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. |
| Concentration | test size: lot-specific; µg sizes: 0.5 mg/ml |
| Storage & Handling | The CD3 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 test size , the suggested use of this reagent for immunofluorescent staining is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. For µg sizes , the suggested use of this reagent for immunofluorescent staining is ≤2.0 µg per 10 ⁶ cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. * Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses |
| Excitation Laser | Violet Laser (405 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).

Application References

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Product Citations

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RRID

AB_493095 (BioLegend Cat. No. 300418)
AB_1595437 (BioLegend Cat. No. 300431)
AB_493094 (BioLegend Cat. No. 300417)
AB_2562048 (BioLegend Cat. No. 300442)

Antigen Details

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|---------------------|---|
| Structure | Ig superfamily, with the subunits of CD3γ, CD3δ, CD3ζ (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 |

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|---------------------------|--|
| 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. <i>The Leucocyte FactsBook</i> . 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 |

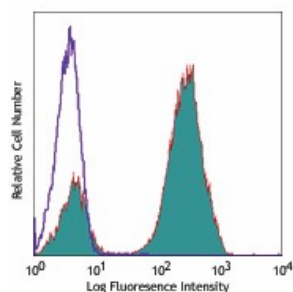
Related Protocols

[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 Pacific Blue™

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