

APC anti-human CD3 Antibody

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| Catalog# / Size | 300311 / 25 tests 300312 / 100 tests |
| Clone | HIT3a |
| Regulatory Status | RUO |
| Workshop | V CD03.05 |
| Other Names | T3, CD3ε |
| Isotype | Mouse IgG2a, 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 lymphocytes, NK-T 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 |
| 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 APC 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 | Red Laser (633 nm) |
| Application Notes | Additional reported (for the relevant formats) applications include: immunohistochemical staining of acetone-fixed frozen sections, immunoprecipitation, and activation of T lymphocytes ⁴⁻⁷ . The HIT3a antibody is able to stimulate T cell activation. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 300314). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 300332) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/µg). |

Application References

(PubMed link indicates BioLegend citation)

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RRID [AB_314047](#) (BioLegend Cat. No. 300311)
[AB_314048](#) (BioLegend Cat. No. 300312)

Antigen Details

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| 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 | T cells, NKT cells, Thymocytes, Tregs |
| Biology Area | Immunology |
| Molecular Family | CD Molecules, TCRs |
| Antigen References | <ol style="list-style-type: none"> 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 |

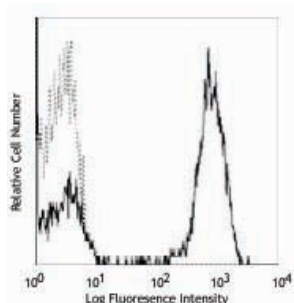
Related Protocols

[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, APC/Cyanine7 anti-human CD3, PE/Cyanine7 anti-human CD3, Alexa Fluor® 488 anti-human CD3, Alexa Fluor® 647 anti-human CD3, Alexa Fluor® 700 anti-human CD3, PerCP anti-human CD3, PerCP/Cyanine5.5 anti-human CD3, Pacific Blue™ anti-human CD3, Ultra-LEAF™ Purified anti-human CD3, PE/Dazzle™ 594 anti-human CD3

Product Data



Human peripheral blood lymphocytes
stained with HIT3a APC

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