

PE/Cy7 Anti-human CD3 Antibody *HIT3a*Catalog number: 100301N0, 100301N1, 100301N2
Unit size: 25 tests, 100 tests, 500 tests**Product Details**

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|--------------------|---|
| Storage Conditions | 2-8°C with minimized light exposure. Do not freeze. |
| Expiration Date | 12 months upon receiving |
| Concentration | 0.1 mg/mL |
| Formulation | Phosphate-buffered saline (PBS, pH 7.2), 0.09% sodium azide, 0.2% (w/v) BSA |

Antibody Properties

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|--------------------|-------------|
| Species Reactivity | Human |
| Class | Primary |
| Clonality | Monoclonal |
| Host | Mouse |
| Isotype | Mouse IgG2a |
| Immunogen | CD3e (T3E) |
| Clone | HIT3a |
| Conjugate | PE/Cy7 |

Biological Properties

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|-------------|---|
| Preparation | Antibody purified by affinity chromatography and then conjugated with PE/Cy7 under optimal conditions |
| Application | Flow Cytometry (FACS) |

Spectral Properties

| | |
|-----------------------|--------|
| Conjugate | PE/Cy7 |
| Excitation Wavelength | 566 nm |
| Emission Wavelength | 778 nm |

Applications

HIT3a is an anti-human monoclonal antibody that recognizes the CD3e antigen. CD3e (sometimes referred to as T cell antigen receptor complex or T3E) is a 20 kD member of the Ig superfamily that is found on the surface of cells like T cells. CD3 acts in essential cellular pathways, namely, the G protein-coupled receptor signaling pathway, apoptotic signaling pathway and T cell receptor signaling pathway. In addition, in certain organisms, it positively regulates T cell energy, acts to positively regulate cell-matrix adhesion and is involved in the positive regulation of calcium-mediated signaling. From a research standpoint, it is of biological interest due to its association with essential macromolecules/ligands such as TCR. CD3 is a very popular antibody target, with over 80000 publications in the last decade. CD3e is typically used in flow cytometry applications as a phenotypic marker for differentiation of cell types, especially in the study of immunology. This antibody was purified through

affinity chromatography and conjugated to PE/Cy7 (ex/em = 566/778 nm). It is compatible with the 561 nm laser and 780/60 nm bandpass filter (for example, as in the BD Special Order LSRFortessa™ Cell Analyzer).