

**iFluor™ 514 Anti-human CD4 Antibody**  
**\*HIT4a\***Catalog number: 10040060, 10040061  
Unit size: 100 tests, 500 tests**Product Details**

|                    |                                                                             |
|--------------------|-----------------------------------------------------------------------------|
| 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**

|                    |                 |
|--------------------|-----------------|
| Species Reactivity | Human           |
| Class              | Primary         |
| Clonality          | Monoclonal      |
| Host               | Mouse           |
| Isotype            | Mouse IgG2b     |
| Immunogen          | CD4 (Leu-3, T4) |
| Clone              | HIT4a           |
| Conjugate          | iFluor™ 514     |

**Biological Properties**

|             |                                                                                                            |
|-------------|------------------------------------------------------------------------------------------------------------|
| Appearance  | Orange-red liquid                                                                                          |
| Preparation | Antibody purified by affinity chromatography and then conjugated with iFluor™ 514 under optimal conditions |
| Application | Flow Cytometry (FACS), Fluorescence Imaging                                                                |

**Spectral Properties**

|                       |             |
|-----------------------|-------------|
| Conjugate             | iFluor™ 514 |
| Excitation Wavelength | 528 nm      |
| Emission Wavelength   | 555 nm      |

**Applications**

HIT4a is an anti-human monoclonal antibody that targets the CD4 antigen. CD4 (alternatively called Leu3a or T4) is a 55 kD single-pass type I membrane protein that is expressed on the surface of cells such as granulocytes, T cells and macrophages. CD4 is involved with key cellular pathways, namely, the enzyme linked receptor protein signaling pathway, transmembrane receptor protein tyrosine kinase signaling pathway

and cytokine-mediated signaling pathway. Moreover, in many organisms, it is involved in the positive regulation of monocyte differentiation, upregulates MAPK cascade and is an enhancer of ERK1 and ERK2 cascade. CD4 has been associated with vital biological processes like immune response, particularly adaptive immune response, and is associated with a variety of biologically interesting macromolecules/ligands, for example, Lck, IL-16, MHC Class II and gp120. CD4 is a very popular antibody target, with over 180000 publications in the last decade. CD4 is essential for immunology research, typically serving as a phenotypic marker for differentiating cell types in flow cytometric applications. This antibody was purified through affinity chromatography and conjugated to iFluor™ 514 (ex/em = 528/555 nm). It is compatible with the 532 nm laser and 575/25 nm bandpass filter (for example, as in the BD FACSymphony™ A5).