

PacOrange Anti-human CD3 Antibody
HIT3bCatalog number: 100311K0, 100311K1
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 IgG1 |
| Immunogen | CD3e (T3E) |
| Clone | HIT3b |
| Conjugate | PacOrange |

Biological Properties

| | |
|-------------|--|
| Preparation | Antibody purified by affinity chromatography and then conjugated with PacOrange under optimal conditions |
| Application | Flow Cytometry (FACS), Fluorescence Imaging |

Spectral Properties

| | |
|-----------------------|-----------|
| Conjugate | PacOrange |
| Excitation Wavelength | 400 nm |
| Emission Wavelength | 551 nm |

Applications

The HIT3b monoclonal antibody binds to human CD3e, a 20 kD single-pass type I membrane protein commonly located on the surface of nkt cells, tregs, thymocytes (differentiation dependent), thymocytes and t cells. In many organisms, CD3 positively regulates T cell anergy, is a promoter of peptidyl-tyrosine phosphorylation and enhances interferon-gamma production. Also, it is a component of vital cellular pathways, namely, the G protein-coupled receptor signaling pathway, cell surface receptor signaling pathway and negative regulation of smoothed signaling pathway. From a research standpoint, it is of biological interest due to its association with vital macromolecules/ligands such as TCR.

CD3 is a very popular antibody target, with over 80000 publications in the last decade. CD3e is frequently used in flow cytometry applications as a phenotypic marker for differentiation of cell types, particularly in the study of immunology. This antibody was purified through affinity chromatography and conjugated to PacOrange (ex/em = 400/551 nm). It is compatible with the 405 nm laser and 528/45 nm bandpass filter (for example, as in the BD FACSMelody™).