

**iFluor™ 810 Anti-human CD3 Antibody**  
**\*HIT3b\***Catalog number: 10031000, 10031001  
Unit size: 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 IgG1
Immunogen	CD3e (T3E)
Clone	HIT3b
Conjugate	iFluor™ 810

**Biological Properties**

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Appearance	Green liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with iFluor™ 810 under optimal conditions
Application	Flow Cytometry (FACS), Fluorescence Imaging

**Spectral Properties**

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Conjugate	iFluor™ 810
Excitation Wavelength	811 nm
Emission Wavelength	822 nm

**Applications**

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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 iFluor™ 810 (ex/em = 811/822 nm).