

**XFD647 Anti-human CD4 Antibody \*HIT4a,  
XFD647 Same Structure to Alexa Fluor™  
647\***Catalog number: 10040180, 10040181  
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 IgG2b
Immunogen	CD4 (Leu-3, T4)
Clone	HIT4a
Conjugate	AF647

**Biological Properties**

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Appearance	Dark blue liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF647 under optimal conditions
Application	Flow Cytometry (FACS), Fluorescence Imaging

**Spectral Properties**

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Conjugate	AF647
Excitation Wavelength	650 nm
Emission Wavelength	671 nm

**Applications**

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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 XFD647 (ex/em = 650/671 nm). XFD647 is manufactured by AAT Bioquest, and it has the same chemical structure of Alexa Fluor® 647 (Alexa Fluor® is the trademark of ThermoFisher). It is compatible with the 642 nm laser and 664/20 nm bandpass filter (for example, as in the Luminex Guava easyCyte).