

## XFD350 Anti-human CD4 Antibody \*OKT-4\*

Catalog Number: 10043140, 10043141

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	Lot specific (please consult certificate of analysis for given lot)
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, $\kappa$
Immunogen	CD4 (Leu-3, T4)
Clone	OKT-4
Conjugate	AF350

### Biological Properties

---

Appearance	Off-white liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF350 under optimal conditions
Application	Flow Cytometry (FACS), Fluorescence Imaging
Recommended Dilutions	For flow cytometry applications, the suggested concentration is at 5 uL/million cells in 100 uL staining buffer. For the best performance of each application, the optimal concentration of this reagent needs to be carefully determined. <i>*The suggested working dilution is provided as a guide only. It is recommended that the users titrates the product for use in their tests using proper positive and negative controls.</i>

### Spectral Properties

---

Conjugate	AF350
Excitation Wavelength	343 nm
Emission Wavelength	441 nm

## Applications

---

OKT-4 is an anti-human monoclonal antibody that targets the CD4 antigen. CD4 (also known as T4) is a 55 kD member of the Ig superfamily that is located on the surface of cells such as macrophages. In certain organisms, CD4 positively regulates kinase activity, promotes I-kappaB kinase/NF-kappaB signaling and upregulates transcription, DNA-templated. Additionally, it has been thought to be involved with essential biological processes such as immune response, especially adaptive immune response. CD4 is a member of critical cellular pathways, for instance, the cytokine-mediated signaling pathway, enzyme linked receptor protein signaling pathway and interleukin-15-mediated signaling pathway. From a research standpoint, it is of biological interest due to its association with key macromolecules/ligands like Lck and IL-16. CD4 is a very popular antibody target, with over 185000 publications in the last decade. CD4 is frequently 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 XFD350 (ex/em = 343/441 nm). XFD350 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 350 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 355 nm laser and 450/50 nm bandpass filter (for example, as in the BD Special Order LSRFortessa™ Cell Analyzer).