XFD700 Anti-human CD4 Antibody *RPA-T4*

Catalog Number: 100411A0, 100411A1
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 IgG1
Immunogen	CD4 (Leu-3, T4)
Clone	RPA-T4
Conjugate	AF700

Biological Properties

Appearance	Dark blue liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF700 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. **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.*

Spectral Properties

Conjugate	AF700
Excitation Wavelength	696 nm
Emission Wavelength	719 nm

Applications

RPA-T4 is an anti-human monoclonal antibody that targets the CD4 antigen. CD4 (sometimes called T4 or Leu3a) is a 55 kD transmembrane glycoprotein that is expressed on the surface of cells such as granulocytes, T cells and macrophages. CD4 acts in vital cellular pathways, for instance, the T cell receptor signaling pathway, interleukin-15-mediated signaling pathway and enzyme linked receptor protein signaling pathway. Furthermore, in many organisms, it promotes interleukin-2 biosynthetic process, upregulates peptidyl-tyrosine phosphorylation and acts to positively regulate I-kappaB kinase/NF-kappaB signaling. CD4 has been associated with key biological processes such as membrane organization, specifically fusion of virus membrane with host plasma membrane, and is associated with a variety of biologically interesting macromolecules/ligands, namely, gp120 and Lck. CD4 is a very popular antibody target, with over 180000 publications in the last decade. CD4 is commonly 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 XFD700 (ex/em = 696/719 nm). XFD700 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 700 (Alexa Fluor® is the trademark of Thermo Fisher).