

XFD488 Anti-human CD4 Antibody *RPA-T4*

Catalog Number: 10041150, 10041151

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 | 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

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|--------------------|-----------------|
| Species Reactivity | Human |
| Class | Primary |
| Clonality | Monoclonal |
| Host | Mouse |
| Isotype | Mouse IgG1 |
| Immunogen | CD4 (Leu-3, T4) |
| Clone | RPA-T4 |
| Conjugate | AF488 |

Biological Properties

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|-----------------------|---|
| Appearance | Orange liquid |
| Preparation | Antibody purified by affinity chromatography and then conjugated with AF488 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

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|-----------------------|--------|
| Conjugate | AF488 |
| Excitation Wavelength | 499 nm |
| Emission Wavelength | 520 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 XFD488 (ex/em = 499/520 nm). XFD488 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 488 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 488 nm laser and 530/30 nm bandpass filter (for example, as in the BD FACSCanto™ II).