

XFD647 Anti-human CD4 Antibody *SK3*

Catalog Number: 10042180, 10042181

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, κ |
| Immunogen | CD4 (Leu-3, T4) |
| Clone | SK3 |
| 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 |
| Recommended Dilutions | For flow cytometry applications, the suggested concentration is at 5 μ L/million cells in 100 μ L 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 AF647
Excitation Wavelength 650 nm
Emission Wavelength 671 nm

Applications

SK3 is an anti-human monoclonal antibody that recognizes the CD4 antigen. CD4 (alternatively called T4 or Leu3a) is a 55 kD member of the Ig superfamily that is located on the surface of cells such as macrophages, T cells and granulocytes. CD4 has been associated with important biological processes such as membrane organization, specifically fusion of virus membrane with host plasma membrane. Furthermore, it is involved with vital cellular pathways, for example, the T cell receptor signaling pathway, enzyme linked receptor protein signaling pathway and cytokine-mediated signaling pathway. In some organisms, CD4 acts to positively regulate peptidyl-tyrosine phosphorylation, is an enhancer of transcription, DNA-templated and is a positive regulator of ERK1 and ERK2 cascade. From a research standpoint, it is of biological interest due to its association with essential macromolecules/ligands such as MHC Class II, gp120, IL-16 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, especially in the study of immunology. 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 a chemical structure similar to that of Alexa Fluor® 647 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 642 nm laser and 702/87 nm bandpass filter (for example, as in the Luminex Amnis CellStream).