# PE/XFD610 Anti-human CD11a Antibody *R7-1*

Catalog Number: 101141P0, 101141P1, 101141P2
Unit Size: 25 tests, 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 | CD11a (LFA-1A, Integrin aL, ITGAL) |
| Clone | R7-1 |
| Conjugate | PE/AF610 |

## Biological Properties

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| Preparation | Antibody purified by affinity chromatography and then conjugated with PE/AF610 under optimal conditions |
| Application | Flow Cytometry (FACS) |
| 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.<br>**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

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| Conjugate | PE/AF610 |

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| Excitation Wavelength | 565 nm |
| Emission Wavelength | 627 nm |

## Applications

R7-1 is an anti-human monoclonal antibody that forms an immune complex with the CD11a antigen. CD11a (alternatively called αL Integrin or Integrin alpha-L) is a 170 - 180 kD transmembrane glycoprotein that is found on the surface of cells like T cells, NK cells, macrophages, granulocytes and B cells. CD11a has been closely linked to critical biological processes like cell-cell adhesion, particularly leukocyte cell-cell adhesion. In addition, it is involved with key cellular pathways, in particular, the integrin-mediated signaling pathway. From a research standpoint, it is of biological interest due to its association with vital macromolecules/ligands like ICAM-1, 2, 3 and 4 and CD18. CD11a is a fairly uncommon antibody target, with a little more than 3700 publications in the last decade. Even still, CD11a is often used in flow cytometry applications as a phenotypic marker for differentiation of cell types, especially in the study of cell adhesion and immunology. This antibody was purified through affinity chromatography and conjugated to PE/XFD610 (ex/em = 567/627 nm). XFD610 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 610 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 561 nm laser and 610/20 nm bandpass filter (for example, as in the BD FACSAria™ Fusion).