

## XFD750 Anti-human CD11a Antibody \*HI111\*

Catalog Number: 101101B0,

101101B1

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          | CD11a (LFA-1A, Integrin $\alpha$ L, ITGAL) |
| Clone              | HI111                                      |
| Conjugate          | AF750                                      |

### Biological Properties

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| Appearance            | Dark blue liquid                                                                                                                                                                                                                                     |
| Preparation           | Antibody purified by affinity chromatography and then conjugated with AF750 under optimal conditions                                                                                                                                                 |
| Application           | Flow Cytometry (FACS), Fluorescence Imaging                                                                                                                                                                                                          |
| Recommended Dilutions | For flow cytometry applications, the suggested concentration is at 5 $\mu$ L/million cells in 100 $\mu$ 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

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|                       |        |
|-----------------------|--------|
| Conjugate             | AF750  |
| Excitation Wavelength | 752 nm |
| Emission Wavelength   | 776 nm |

## Applications

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HI111 is an anti-human monoclonal antibody that forms an immune complex with the CD11a antigen. CD11a (also known as Integrin alpha-L or LFA-1 $\alpha$  chain) is a 170 - 180 kD transmembrane protein that is expressed on the surface of cells such as granulocytes and macrophages. CD11a has been associated with critical biological processes like cell-cell adhesion, especially leukocyte cell-cell adhesion. Moreover, it is a member of essential cellular pathways, for instance, the integrin-mediated signaling pathway. From a research standpoint, it is of biological interest due to its association with vital macromolecules/ligands such as CD18 and ICAM-1, 2, 3 and 4. CD11a is a fairly uncommon antibody target, with a little more than 3700 publications in the last decade. Even still, CD11a has a variety of applications in neuroscience and innate immunity research, typically serving as a phenotypic marker for differentiating cell types in flow cytometric applications. This antibody was purified through affinity chromatography and conjugated to XFD750 (ex/em = 752/776 nm). XFD750 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 750 (Alexa Fluor® is the trademark of Thermo Fisher).