

**XFD555 Anti-human CD11a Antibody \*R7-1\***

Catalog Number: 10114160, 10114161

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	R7-1
Conjugate	AF555

**Biological Properties**

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Appearance	Red liquid
Preparation	Antibody purified by affinity chromatography and then conjugated with AF555 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	AF555
Excitation Wavelength	553 nm
Emission Wavelength	568 nm

## Applications

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R7-1 is an anti-human monoclonal antibody that forms an immune complex with the CD11a antigen. CD11a (alternatively called  $\alpha$ L 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 XFD555 (ex/em = 553/568 nm). XFD555 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 555 (Alexa Fluor® is the trademark of Thermo Fisher). It is compatible with the 561 nm laser and 582/15 nm bandpass filter (for example, as in the BD FACSAria™ III).