

## XFD555 Anti-human CD55 Antibody \*HI55a\*

Catalog Number: 10550160, 10550161

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 IgG2a |
| Immunogen          | CD55 (DAF)  |
| Clone              | HI55a       |
| 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 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><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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HI55a is an anti-human monoclonal antibody that targets the CD55 antigen. CD55 (sometimes called Complement decay accelerating factor or DAF (Decay Accelerating Factor)) is a 60 - 70 kD single-pass type I membrane protein that is found on the surface of cells like macrophages, platelets, granulocytes, T cells and NK cells. CD55 is a component of vital cellular pathways, for example, the complement activation, classical pathway and regulation of lipopolysaccharide-mediated signaling pathway. Additionally, in some organisms, it is involved in the positive regulation of CD4-positive, alpha-beta T cell activation, upregulates CD4-positive, alpha-beta T cell proliferation and acts to positively regulate cytosolic calcium ion concentration. From a research standpoint, it is of biological interest due to its association with important macromolecules/ligands like SCR, CD97 and Echoviruses. CD55 is a fairly uncommon antibody target, with a little more than 3000 publications in the last decade. Even still, CD55 is typically used in flow cytometry applications as a phenotypic marker for differentiation of cell types, particularly in the study of cell biology, neuroinflammation 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 572/28 nm bandpass filter (for example, as in the Agilent Technologies NovoCytte Advanteon).