

**XFD680 Anti-human CD158d Antibody \*mAb#33\***

Catalog Number: 11581180, 11581181

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 kappa |
| Immunogen          | CD158d (KIR2DL4) |
| Clone              | mAb#33           |
| Conjugate          | AF680            |

**Biological Properties**

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|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Appearance            | Blue liquid                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Preparation           | Antibody purified by affinity chromatography and then conjugated with AF680 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             | AF680  |
| Excitation Wavelength | 681 nm |
| Emission Wavelength   | 704 nm |

## Applications

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The mAb#33 monoclonal antibody binds to human CD158d, a 45 - 50 kD transmembrane glycoprotein frequently expressed on the surface of natural killer cells. In certain organisms, CD158d negatively regulates natural killer cell mediated cytotoxicity, is an enhancer of cellular senescence and positively regulates natural killer cell cytokine production. From a research standpoint, it is of biological interest due to its association with essential macromolecules/ligands like HLA-Bw4. CD158d is a relatively rare antibody target, with fewer than 200 publications in the last decade. Even still, CD158d has been widely used in immunology and innate immunity research, often serving as a phenotypic marker for differentiating cell types in flow cytometric applications. This antibody was purified through affinity chromatography and conjugated to XFD680 (ex/em = 681/704 nm). XFD680 is manufactured by AAT Bioquest, and it has a chemical structure similar to that of Alexa Fluor® 680 (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).