

**PE/XFD610 Anti-human CD16 Antibody \*HI16a\***

Catalog Number: 101601O0,  
101601O1, 101601O2  
Unit Size: 25 tests, 100 tests, 500 tests

**Product Details**

---

|                    |                                                                             |
|--------------------|-----------------------------------------------------------------------------|
| 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**

---

|                    |                 |
|--------------------|-----------------|
| Species Reactivity | Human           |
| Class              | Primary         |
| Clonality          | Monoclonal      |
| Host               | Mouse           |
| Isotype            | Mouse IgG1      |
| Immunogen          | CD16a (FCRIIIA) |
| Clone              | HI16a           |
| Conjugate          | PE/AF610        |

**Biological Properties**

---

|                       |                                                                                                                                                                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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. |
|                       | <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**

---

|           |          |
|-----------|----------|
| Conjugate | PE/AF610 |
|-----------|----------|

Excitation Wavelength 565 nm

Emission Wavelength 627 nm

## Applications

---

The HI16a monoclonal antibody recognizes human CD16a, a 50 - 65 kD transmembrane glycoprotein often located on the surface of neutrophils, natural killer cells and macrophages. CD16 is involved with critical cellular pathways, for instance, the Fc-gamma receptor signaling pathway involved in phagocytosis. From a research standpoint, it is of biological interest due to its association with essential macromolecules/ligands like IgG Fc. CD16 is a very popular antibody target, with over 25000 publications in the last decade. CD16a is essential for 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 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 620/15 nm bandpass filter (for example, as in the Thermo Fisher Attune NxT).