

## iF647 Anti-Human CD33 Antibody

|                           |                                    |
|---------------------------|------------------------------------|
| <b>Catalog Number:</b>    | 116801, 116802                     |
| <b>Size:</b>              | 25 tests, 100 tests                |
| <b>Target Name:</b>       | CD33, Siglec-3, gp67, p67, Siglec3 |
| <b>Regulatory Status:</b> | RUO                                |

### PRODUCT DETAILS

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| <b>Clone:</b>                 | Lintuzumab                                                                                                                                                                                                                                                                                  |
| <b>Application:</b>           | Flow Cytometry                                                                                                                                                                                                                                                                              |
| <b>Reactivity:</b>            | Human                                                                                                                                                                                                                                                                                       |
| <b>Format:</b>                | iF647                                                                                                                                                                                                                                                                                       |
| <b>Isotype:</b>               | Human IgG1                                                                                                                                                                                                                                                                                  |
| <b>Antibody Type:</b>         | Monoclonal                                                                                                                                                                                                                                                                                  |
| <b>Formulation:</b>           | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA                                                                                                                                                                                                       |
| <b>Protein Concentration:</b> | Supplied at a lot-specific concentration.                                                                                                                                                                                                                                                   |
| <b>Storage&amp;Handling:</b>  | The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.                                                                                                                                                        |
| <b>Recommended Usage:</b>     | For flow cytometric staining, it is recommended to use 5 µL of this reagent per 0.5-1.0 million cells in a 100 µL volume. Optimal reagent performance should be determined by titration for each specific application. iF647 has an excitation max at 656 nm and an emission max at 670 nm. |
| <b>Excitation Laser:</b>      | Red Laser (633 nm)                                                                                                                                                                                                                                                                          |
| <b>Isotype Control:</b>       | 301207                                                                                                                                                                                                                                                                                      |

### BACKGROUND INFORMATION

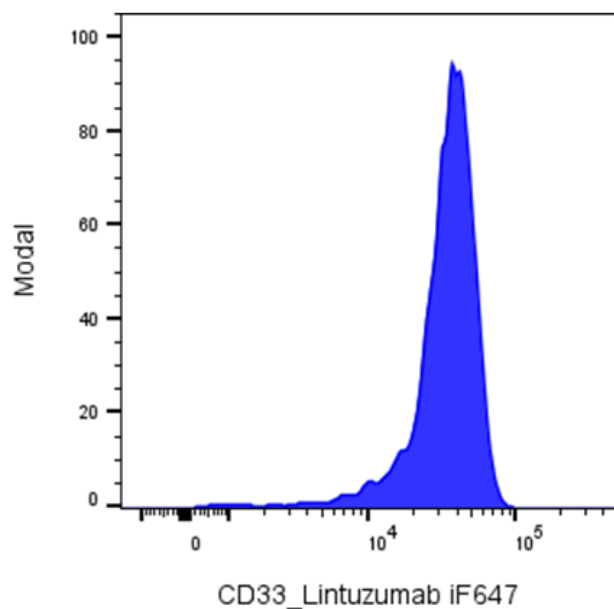
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Human CD33 is a sialic acid-binding immunoglobulin-like lectin (Siglec-3) expressed primarily on myeloid lineage cells, including monocytes, myeloid progenitors, and some dendritic cells. It functions as an inhibitory receptor that modulates immune cell activation through intracellular immunoreceptor tyrosine-based inhibitory motifs (ITIMs). Structurally, CD33 is a type I transmembrane glycoprotein composed of an extracellular domain with Ig-like folds that bind sialylated glycans, a single transmembrane region, and a cytoplasmic tail containing signaling motifs. Its ligands are sialic acid-containing glycoproteins and glycolipids commonly found on cell surfaces, enabling it to regulate cell-cell interactions and dampen immune responses.

CD33 is highly relevant in disease, particularly in acute myeloid leukemia (AML), where it is overexpressed on leukemic blasts, making it a valuable diagnostic marker and therapeutic target. Lintuzumab is a humanized monoclonal antibody directed against CD33 that binds the extracellular domain and promotes immune-mediated cytotoxicity, including antibody-dependent cellular cytotoxicity (ADCC). Although unconjugated lintuzumab has shown modest efficacy, it has been explored in combination therapies

and as a targeting moiety for antibody-drug conjugates or radioimmunotherapy. Targeting CD33 allows selective elimination of malignant myeloid cells while sparing non-myeloid tissues, positioning CD33-directed agents, including lintuzumab-based strategies, as important components in AML therapeutic development.

## PRODUCT DATA



Human peripheral blood monocytes were stained with i F647 Anti-Human CD33 clone Lintuzumab.

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