www.innocyto.com

InnoCyto Inc.

15375 Barranca Pkwy, Suite I-103
Irvine, CA 92618
Email: info@innocyto.com
Phone: 1-949-418-7543

iF647 Anti-Human CD33 Antibody

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

PRODUCT DETAILS

Clone:	Lintuzumab
Application:	Flow Cytometry
Reactivity:	Human
Format:	iF647
Isotype:	Human IgG1
Antibody Type:	Monoclonal
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA
Protein Concentration:	Supplied at a lot-specific concentration.
Storage & Handling:	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Recommended Usage:	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.
Excitation Laser:	Red Laser (633 nm)
Isotype Control:	301207
GeneID:	945
RRID:	AB_3759088

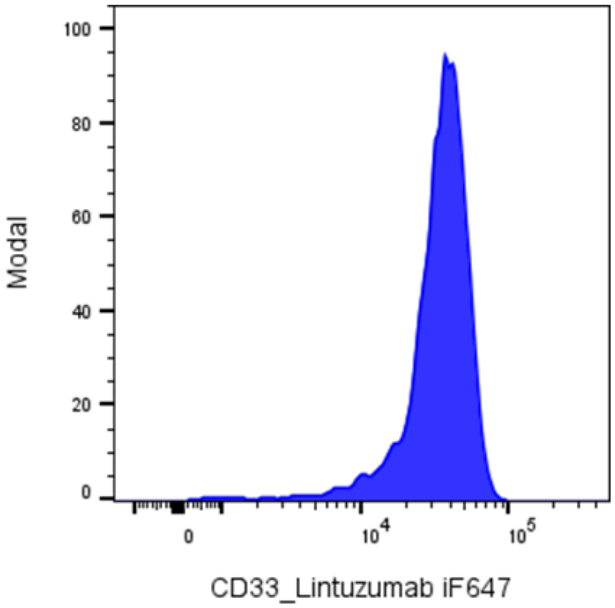
BACKGROUND INFORMATION

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.

This product is supplied subject to the terms and conditions at www.innocyto.com/web/terms.php and may only be used as provided in the stated terms. Products are for Research Use Only.