

1P-365-T025

Monoclonal Antibody to CD33 Phycoerythrin (PE) conjugated (25 tests)

Clone:	HIM3-4
Isotype:	Mouse IgG1
Specificity:	The antibody HIM3-4 reacts with CD33, a 67 kDa type I transmembrane glycoprotein (immunoglobulin superfamily) expressed on myeloid progenitors, monocytes, granulocytes, dendritic cells and mast cells; it is absent on platelets, lymphocytes, erythrocytes and hematopoietic stem cells. HLDA V; WS Code M MA112 HLDA VI; WS Code M MA47
Immunogen:	NFMY-9s human cell line
Species Reactivity:	Human, Non-Human Primates
Preparation:	The purified antibody is conjugated with R-Phycoerythrin (PE) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.5 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD33 is a transmembrane protein of the sialic acid-binding immunoglobulin-like lectin (Siglec) family. It belongs to the immunoreceptor tyrosine-based inhibitory motif (ITIM)-containing molecules able of recruiting protein tyrosine phosphatases SHP-1 and SHP-2 to signal assemblies; these ITIMs are also used for ubiquitin-mediated removal of the receptor from the cell surface. CD33 is expressed on cells of myelomonocytic lineage, binds sialic acid residues in N- and O-glycans on cell surfaces, and is a therapeutic target for acute myeloid leukemia.

For laboratory research only, not for drug, diagnostic or other use.



Antibodies

References:

- *Ulyanova T, Blasioli J, Woodford-Thomas TA, Thomas ML: The sialoadhesin CD33 is a myeloid-specific inhibitory receptor. *Eur J Immunol.* 1999 Nov;29(11):3440-9.
- *Walter RB, Häusermann P, Raden BW, Teckchandani AM, Kamikura DM, Bernstein ID, Cooper JA: Phosphorylated ITIMs Enable Ubiquitylation of an Inhibitory Cell Surface Receptor. *Traffic.* 2007 Dec 18
- *Orr SJ, Morgan NM, Elliott J, Burrows JF, Scott CJ, McVicar DW, Johnston JA: CD33 responses are blocked by SOCS3 through accelerated proteasomal-mediated turnover. *Blood.* 2007 Feb 1;109(3):1061-8.
- *Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).
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- *McCormack E, Mujic M, Osdal T, Bruserud O, Gjertsen BT: Multiplexed mAbs: a new strategy in preclinical time-domain imaging of acute myeloid leukemia. *Blood.* 2013 Feb 14;121(7):e34-42. doi: 10.1182/blood-2012-05-429555.

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