EXBIO Antibodies

PRODUCT DATA SHEET

11-365-C100

Monoclonal Antibody to CD33
Purified Antibody (0.1 mg)

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

Application: Flow Cytometry

Purity: > 95% (by SDS-PAGE)

Purification: Purified by protein A

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

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.

References:

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*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).
*Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).
*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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