Antibodies

Anti-Human CD33 Antibody, Clone HIM3-4

Mouse monoclonal IgG1 antibody against human, chimpanzee CD33, unconjugated

Catalog #60096

100 ug 0.5 mg/mL

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Product Description

The HIM3-4 antibody reacts with CD33 (Siglec-3), an ~67 - 75 kDa type 1 transmembrane sialoadhesion protein of the immunoglobulin superfamily. CD33 is expressed on committed myeloid progenitor cells, monocytes, granulocytes, dendritic cells, mast cells, resident macrophages, and subsets of B cells and activated T and NK cells. CD33 is a major marker used to differentiate myeloid from lymphoid or erythroid leukemias. In peripheral blood it is expressed at high levels on monocytes and at lower levels on granulocytes. CD33 functions as a sialic acid-dependent cell adhesion molecule and mediates protein-glycan and protein-protein interactions between cells. It also has a putative role as an inhibitory receptor during the immune response. HIM3-4 reportedly binds to the extracellular C2 Ig domain of CD33 and does not block subsequent binding of several other anti-CD33 clones, including P67.6, WM53 and WM54. Two isoforms designated CD33M and CD33m have been identified and among these clones only HIM3-4 recognizes both isoforms.

Target Antigen Name:	CD33
Alternative Names:	gp67, p67, sialic acid-binding immunoglobulin-like lectin 3, SIGLEC3, Siglec-3
Gene ID:	945
Species Reactivity:	Human, Chimpanzee
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	HIM3-4
Isotype:	IgG1, kappa
Immunogen:	NFMY-9s human cell line
Conjugate:	Unconjugated

Applications

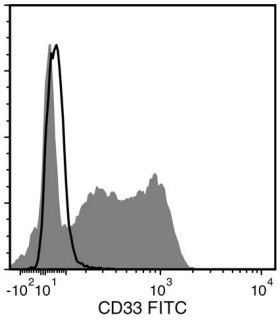
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human CD14 Positive Selection Kit (Catalog #18058) and EasySep™ Human Buffy Coat CD14 Positive Selection Kit (Catalog #18088).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 2.0 µg per 1 x 10e6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD33 Antibody, Clone HIM3-4, followed by goat anti-mouse IgG, FITC (filled histogram) or a mouse IgG1, kappa isotype control antibody followed by goat anti-mouse IgG, FITC (black line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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4. Robillard N, et al. CD33 is expressed on plasma cells of a significant number of myeloma patients, and may represent a therapeutic target. Leukemia 19(11): 2021-22, 2005 (FC)
5. Hernández-Caselles T, et al. (2006) A study of CD33 (SIGLEC-3) antigen expression and function on activated human T and NK cells: two isoforms of CD33 are generated by alternative splicing. J Leukoc Biol 79(1) 46-58 (FC)
6. Pérez-Oliva AB, et al. Epitope mapping, expression and post-translational modifications of two isoforms of CD33 (CD33M and CD33m) on lymphoid and myeloid human cells. Glycobiology 21(6): 757-70, 2011 (FC, ICC, IF)