

PE anti-human CD33 Antibody

Catalog# / Size	303403 / 25 tests 303404 / 100 tests
Clone	WM53
Regulatory Status	RUO
Workshop	IV M-505
Other Names	Siglec-3, gp67, p67
Isotype	Mouse IgG1, κ
Description	CD33 is a 67 kD type I transmembrane glycoprotein also known as Siglec-3, gp67, and p67. It is a sialoadhesion immunoglobulin superfamily member expressed on myeloid progenitors, monocytes, granulocytes, dendritic cells and mast cells. CD33 is absent on normal platelets, lymphocytes, erythrocytes and hematopoietic stem cells. CD33 functions as a sialic acid-dependent cell adhesion molecule with carbohydrate/lectin binding activity.

Product Details

Verified Reactivity	Human
Reported Reactivity	Chimpanzee
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human myeloid leukaemia cells.
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
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.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Additional reported applications (for the relevant formats) include: immunoprecipitation, Western blotting ³ , induction of cytokine production ³ , and immunofluorescence ⁴ . The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. Nos. 303437 & 303438).
Application References	1. Knapp W, <i>et al.</i> 1989. Leucocyte Typing IV. Oxford University Press. New York. 2. Favaloro E, <i>et al.</i> 1988. <i>Br. J. Haematol.</i> 69:163. 3. Garnache-Ottou F, <i>et al.</i> 2005. <i>Blood</i> 105:1256. (WB) 4. Pérez-Oliva AB, <i>et al.</i> 2011. <i>Glycobiology.</i> 21:757. (epitope, FC, IF)
(PubMed link indicates BioLegend citation)	

Product Citations

1. Kenney DJ, *et al.* 2022. Cell Rep. 39:110714. [PubMed](#)

2. Wu X, *et al.* 2023. iScience. 26:106559. [PubMed](#)

3. Galán-Díez M, *et al.* 2022. Cancer Discov. . [PubMed](#)

4. Alissafi T, *et al.* 2018. J Clin Invest. 128:3840. [PubMed](#)

5. Tcheng M, *et al.* 2021. Blood. 137:3518. [PubMed](#)

6. Zhu ZY, *et al.* 2022. Front Immunol. 12:781087. [PubMed](#)

7. Subramaniam A, *et al.* 2020. Blood. 136:2151. [PubMed](#)

8. Bhattacharjee A, *et al.* 2021. Mol Neurodegener. 16:19. [PubMed](#)

9. Schmiderer L, *et al.* 2020. Proc Natl Acad Sci U S A. 117:21267. [PubMed](#)

10. Vanuytsel K, *et al.* 2022. Nat Commun. 13:1103. [PubMed](#)

11. Eriksson E, *et al.* 2019. J Immunol. 202:787. [PubMed](#)

12. Szentkereszty M, *et al.* 2020. Pathol Oncol Res. 26:1117. [PubMed](#)

RRID

AB_314347 (BioLegend Cat. No. 303403)
AB_314348 (BioLegend Cat. No. 303404)

Antigen Details

Structure	Ig superfamily, sialoadhesins, type I glycoprotein, 67 kD
Distribution	Myeloid progenitor, monocytes, granulocytes, dendritic cells, mast cells
Function	Adhesion and lectin activity
Ligand/Receptor	Sugar chains containing sialic acid
Cell Type	B cells, Dendritic cells, Granulocytes, Hematopoietic stem and progenitors, Mast cells, Monocytes, Neutrophils
Biology Area	Cell Biology, Immunology, Neuroinflammation, Neuroscience
Molecular Family	CD Molecules, Siglec Molecules
Antigen References	1. Favaloro E, <i>et al.</i> 1988. <i>Br. J. Haematol.</i> 69:163. 2. Freeman S, <i>et al.</i> 1995. <i>Blood</i> 85:2005.
Gene ID	945

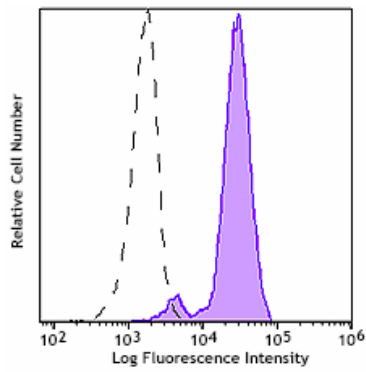
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-human CD33, PE anti-human CD33, PE/Cyanine5 anti-human CD33, Purified anti-human CD33, PerCP/Cyanine5.5 anti-human CD33, Brilliant Violet 711™ anti-human CD33, Brilliant Violet 421™ anti-human CD33, Brilliant Violet 570™ anti-human CD33, Purified anti-human CD33 (Maxpar® Ready), Brilliant Violet 510™ anti-human CD33, Biotin anti-human CD33, Brilliant Violet 785™ anti-human CD33, Brilliant Violet 650™ anti-human CD33, PE/Cyanine7 anti-human CD33, PE/Dazzle™ 594 anti-human CD33, Alexa Fluor® 700 anti-human CD33, Ultra-LEAF™ Purified anti-human CD33, APC/Fire™ 750 anti-human CD33, APC/Cyanine7 anti-human CD33, GMP PerCP/Cyanine5.5 anti-human CD33, Alexa Fluor® 647 anti-human CD33, GMP APC anti-human CD33, GMP PE anti-human CD33, PE/Fire™ 810 anti-human CD33, Spark Blue™ 515 anti-human CD33, PE/Fire™ 700 anti-human CD33, GMP PE/Cyanine5 anti-human CD33, Spark Violet™ 423 anti-human CD33, Brilliant Violet 605™ anti-human CD33

Product Data



Human peripheral blood monocytes were stained with anti-human CD33 (clone WM53) PE (filled histogram) or mouse IgG1, κ PE isotype control (open histogram).

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