

CD33 (6C5/2): sc-53199

BACKGROUND

CD33 is a type I transmembrane glycoprotein that is found on granulocyte and macrophage precursors in the bone marrow, but is absent from pluripotent stem cells. CD33 is also expressed on monocytes in peripheral blood. It is used as a marker to distinguish myelogenous leukemia cells from lymphoid or erythroid leukemias. CD33 may function as a sialic acid-dependent cell adhesion molecule.

REFERENCES

1. Griffin, J.D., et al. 1984. A monoclonal antibody reactive with normal and leukemic human myeloid progenitor cells. *Leuk. Res.* 8: 521-534.
2. Favaloro, E.J., et al. 1987. Characterization of monoclonal antibodies to the human myeloid-differentiation antigen, "gp67" (CD-33). *Dis. Markers* 5: 215-225.
3. Andrews, R.G., et al. 1989. Precursors of colony-forming cells in humans can be distinguished from colony-forming cells by expression of the CD33 and CD34 antigens and light scatter properties. *J. Exp. Med.* 169: 1721-1731.
4. Handgretinger, R., et al. 1993. Expression of an early myelopoietic antigen (CD33) of a subset of human umbilical cord blood-derived natural killer cells. *Immunol. Lett.* 37: 223-228.
5. Pierelli, L., et al. 1993. Further investigations on the expression of HLA-DR, CD33 and CD13 surface antigens in purified bone marrow and peripheral blood CD34⁺ haematopoietic progenitor cells. *Br. J. Haematol.* 84: 24-30.
6. Freeman, S.D., et al. 1995. Characterization of CD33 as a new member of the sialoadhesin family of cellular interaction molecules. *Blood* 85: 2005-2012.

CHROMOSOMAL LOCATION

Genetic locus: CD33 (human) mapping to 19q13.41; Cd33 (mouse) mapping to 7 B4.

SOURCE

CD33 (6C5/2) is a mouse monoclonal antibody raised against recombinant CD33 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD33 (6C5/2) is available conjugated to agarose (sc-53199 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53199 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53199 PE), fluorescein (sc-53199 FITC), Alexa Fluor® 488 (sc-53199 AF488), Alexa Fluor® 546 (sc-53199 AF546), Alexa Fluor® 594 (sc-53199 AF594) or Alexa Fluor® 647 (sc-53199 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53199 AF680) or Alexa Fluor® 790 (sc-53199 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CD33 (6C5/2) is recommended for detection of CD33 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD33 siRNA (h): sc-42782, CD33 siRNA (m): sc-42783, CD33 shRNA Plasmid (h): sc-42782-SH, CD33 shRNA Plasmid (m): sc-42783-SH, CD33 shRNA (h) Lentiviral Particles: sc-42782-V and CD33 shRNA (m) Lentiviral Particles: sc-42783-V.

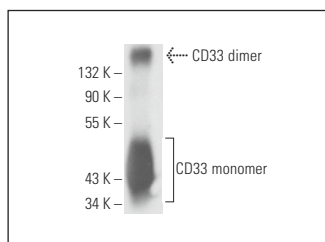
Molecular Weight of CD33: 67 kDa.

Positive Controls: AML-193 whole cell lysate: sc-364182.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



CD33 (6C5/2): sc-53199. Western blot analysis of CD33 expression in AML-193 whole cell lysate under non-reducing conditions.

SELECT PRODUCT CITATIONS

1. Xu, Z., et al. 2014. Peripheral surgical wounding and age-dependent neuroinflammation in mice. *PLoS ONE* 9: e96752.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.