Datasheet: MCA1271F

BATCH NUMBER 159427

Description:	MOUSE ANTI HUMAN CD33:FITC
Specificity:	CD33
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	WM53
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species

Human

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
1% Bovine Serum Albumin

Approx. Protein Concentrations

IgG concentration 0.1 mg/ml

Immunogen	Human AML cells
External Database Links	**UniProt:** P20138 Related reagents **Entrez Gene:** 945 CD33 Related reagents
Synonyms	SIGLEC3
RRID	AB_321663
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1 myeloma cell line
Specificity	**Mouse anti Human CD33 antibody, clone WM53** recognizes the human CD33 cell surface glycoprotein. This antigen, considered to be specific for the myeloid lineage, has also been reported to be present on cells of lymphoid origin. Mouse anti Human CD33 antibody, clone WM53 immunoprecipitates a protein of ~75 kDa from myeloid cells, a smaller protein of approximately 67 kDa has been observed in immunoprecipitates from lymphoid targets.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells or 100ul whole blood.
References	1. Favaloro, E.J. *et al.* (1987) Characterization of monoclonal antibodies to the human myeloid-differentiation antigen, gp67 (CD-33). Dis Markers. 5 (4): 215-25. 2. Favaloro, E.J. *et al.* (1988) Further characterization of human myeloid antigens (gp160,95; gp150; gp67): investigation of epitopic heterogeneity and non-haemopoietic distribution using panels of monoclonal antibodies belonging to CD-11b, CD-13 and CD-33. Br J Haematol. 69 (2): 163-71. 3. 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: 46-58. 4. Biedermann, B. *et al.* (2006) Analysis of the CD33-related siglec family reveals that Siglec-9 is an endocytic receptor expressed on subsets of acute myeloid leukemia cells and absent from normal hematopoietic progenitors. Leuk Res. 31: 211-20. 5. Lajaunias, F. *et al.* (2005) Constitutive repressor activity of CD33 on human monocytes requires sialic acid recognition and phosphoinositide 3-kinase-mediated intracellular signaling. Eur J Immunol. 35: 243-51. 6. Pietschmann, P. *et al.* (2000) Surface markers and transendothelial migration of dendritic cells from elderly subjects. Exp Gerontol. 35: 213-24. 7. Favaloro, E.J. *et al*. (1993) Differential expression of surface antigens on activated endothelium. Immunol Cell Biol. 71:571-81. 8. Yasukawa, T. *et al.* (2012) Simple detection of surface antigens on living cells by applying distinct cell positioning with negative dielectrophoresis. Anal Chem. 84 (20): 8830-6.

9. Hu, Z. *et al.* (2016) Self-assembled nanoparticles based on folic acid modified carboxymethyl chitosan conjugated with targeting antibody J Wuhan Univ of Technol-Mater. Sci. Ed. 31 (2): 446-53.
10. Dahl C *et al.* (2004) Human mast cells express receptors for IL-3, IL-5 and GM-CSF; a partial map of receptors on human mast cells cultured *in vitro*. Allergy. 59 (10): 1087-96.
11. Vamvakopoulos, J.E. & Green, C. (2003) HMG-CoA reductase inhibition aborts functional differentiation and triggers apoptosis in cultured primary human monocytes: a potential mechanism of statin-mediated vasculoprotection. BMC Cardiovasc Disord. 3: 6.
12. Vamvakopoulos, J. *et al.* (2002) Genetic control of IL-1beta bioactivity through differential regulation of the IL-1 receptor antagonist. Eur J Immunol. 32 (10): 2988-96.
13. Lin, C.W. *et al.* (2005) CD94 1A transcripts characterize lymphoblastic lymphoma/leukemia of immature natural killer cell origin with distinct clinical features. Blood. 106 (10): 3567-74.
14. McCormack E *et al.* (2013) Multiplexed mAbs: a new strategy in preclinical time-domain imaging of acute myeloid leukemia. Blood. 121 (7): e34-42.
15. Hernández-Caselles T *et al.* (2019) CD33 (Siglec-3) Inhibitory Function: Role in the NKG2D/DAP10 Activating Pathway. J Immunol Res. 2019: 6032141.

Storage	This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1271F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA928F)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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