

Datasheet: MCA1850F

Description:	MOUSE ANTI HUMAN CD99:FITC
Specificity:	CD99
Other names:	MIC2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	DN16
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 product 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 product 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 G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% sodium azide (NaN ₃)		
Stabilisers	1% bovine serum albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		

**External Database
Links**

UniProt:

[P14209](#) [Related reagents](#)

Entrez Gene:

[4267](#) CD99 [Related reagents](#)

Synonyms MIC2, MIC2X, MIC2Y

RRID AB_323202

Specificity **Mouse anti human CD99 antibody, clone DN16** recognizes human CD99, also known as E2 antigen, MIC2 or 12E7. CD99 is a 185 amino acid ~32 kDa single pass type I transmembrane O-glycosylated glycoprotein. Three isoforms can be produced by alternative splicing. Epitope analysis of the DN16 clone suggests the antibody recognizes a minimal peptide sequence "LPDNENKK" located between residues 32 and 39 towards the N-terminal region of the molecule. This sequence is present in both isoforms I and II but is largely absent from isoform 3 suggesting that the antibody will only recognize isoforms I and II ([Gil et al. 2002](#)).

CD99 expression is notable in the testis, pancreas, bone marrow, lymph nodes and spleen. CD99 is expressed on all classes of leukocytes and tends to be highest on immature cells.

Functionally CD99 has been found to be involved in cellular adhesion/aggregation ([Krisanaprakornkit et al. 2013](#)) and apoptosis ([Sciandra et al. 2014](#)).

Flow Cytometry Use 10µl of the suggested working dilution to label 10⁶ cells in 100µl

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- References**
1. Hahn, J.H. *et al.* (1997) CD99 (MIC2) regulates the LFA-1/ICAM-1-mediated adhesion of lymphocytes, and its gene encodes both positive and negative regulators of cellular adhesion. [J Immunol. 159 \(5\): 2250-8.](#)
 2. Choi, E.Y. *et al.* (1998) Engagement of CD99 induces up-regulation of TCR and MHC class I and II molecules on the surface of human thymocytes. [J Immunol. 161 \(2\): 749-54.](#)
 3. Kim, S.H. *et al.* (1998) Generation of cells with Hodgkin's and Reed-Sternberg phenotype through downregulation of CD99 (Mic2). [Blood. 92 \(11\): 4287-95.](#)
 4. Kim, S.H. *et al.* (2008) Viral latent membrane protein 1 (LMP-1)-induced CD99 down-regulation in B cells leads to the generation of cells with Hodgkin's and Reed-Sternberg phenotype. [Blood. 95: 294-300.](#)
 5. Husak, Z. *et al.* (2010) Death induction by CD99 ligation in TEL/AML1-positive acute lymphoblastic leukemia and normal B cell precursors. [J Leukoc Biol. 88: 405-12.](#)
 6. Husak, Z. and Dworzak, M.N. (2012) CD99 ligation upregulates HSP70 on acute lymphoblastic leukemia cells and concomitantly increases NK cytotoxicity. [Cell Death Dis. 3: e425.](#)
 7. Hughes, S.F. *et al.* (2020) The role of phagocytic leukocytes following flexible ureteroscopy, for the treatment of kidney stones: an observational, clinical pilots-study. [Eur J Med Res. 25 \(1\): 68.](#)

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/MCA1850F>
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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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M429970:240501'

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