

Datasheet: MCA1850

Description:	MOUSE ANTI HUMAN CD99
Specificity:	CD99
Other names:	MIC2
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	DN16
Isotype:	IgG1
Quantity:	0.2 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	▪			
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/1000

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 - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% sodium azide (NaN ₃)

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

External Database Links

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

Entrez Gene:
[4267](#) CD99 [Related reagents](#)

Synonyms MIC2, MIC2X, MIC2Y

RRID AB_323201

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.

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.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at:
<https://www.bio-rad-antibodies.com/SDS/MCA1850>
10040

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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](https://www.bio-rad-antibodies.com/datasheets)
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