Datasheet: MCA1850FT

BATCH NUMBER 180606

Description:	MOUSE ANTI HUMAN CD99:FITC
Specificity:	CD99
Other names:	MIC2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	DN16
Isotype:	IgG1
Quantity:	25 µg

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 ion exchange chromatography

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% Sodium Azide
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_2076307
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 producted 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 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. 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. 2. 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. 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 ureterenoscopy, for the treatment of kidney stones: an observational, clinical pilots-study. Eur J Med Res. 25 (1): 68.

Storage	Store at +4°C or at -20°C if preferred. This product should be stored undiluted. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
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/MCA1850FT 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)

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M365805:200529'

Printed on 01 May 2024