

Datasheet: MCA723G

BATCH NUMBER 172123

Description:	MOUSE ANTI HUMAN CD53
Specificity:	CD53
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MEM-53
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	▪			1/10 - 1/25
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting (1)	▪			

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

(1)Clone MEM-53 recognizes human CD53 under non-reducing conditions.

Target Species	Human
Product Form	Purified IgG - liquid
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
Approx. Protein	IgG concentration 1 mg/ml

Concentrations

External Database

Links

UniProt:

[P19397](#)

[Related reagents](#)

Entrez Gene:

[963](#)

CD53

[Related reagents](#)

Synonyms

MOX44, TSPAN25

RRID

AB_2075724

Specificity

Mouse anti Human CD53 antibody, clone MEM-53 recognizes the human CD53 cell surface antigen, also known as Tetraspanin-25. CD53 is a 219 amino acid multi pass transmembrane glycoprotein of 32-42 kDa. CD53 is expressed by all leucocytes, but is absent from erythrocytes and platelets.

Flow Cytometry

Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.

References

1. Bazil, V. *et al.* (1989) Monoclonal antibodies against human leucocyte antigens. III. Antibodies against CD45R, CD6, CD44 and two newly described broadly expressed glycoproteins MEM-53 and MEM-102. [Folia Biol \(Praha\). 35 \(5\): 289-97.](#)
2. Angelisová P *et al.* (1990) The human leucocyte surface antigen CD53 is a protein structurally similar to the CD37 and MRC OX-44 antigens. [Immunogenetics. 32 \(4\): 281-5.](#)
3. Mollinedo, F. *et al.* (1997) Recurrent infectious diseases in human CD53 deficiency. [Clin Diagn Lab Immunol. 4: 229-31.](#)
4. Matsumoto K *et al.* (1999) Functional expression of transmembrane 4 superfamily molecules on human eosinophils. [Int Arch Allergy Immunol. 120 Suppl 1: 38-44.](#)
5. Spring, F.A. *et al.* (2013) Tetraspanins CD81 and CD82 facilitate $\alpha 4\beta 1$ -mediated adhesion of human erythroblasts to vascular cell adhesion molecule-1. [PLoS One. 8 \(5\): e62654.](#)
6. Tippett, E. *et al.* (2013) Characterization of tetraspanins CD9, CD53, CD63, and CD81 in monocytes and macrophages in HIV-1 infection. [J Leukoc Biol. 93 \(6\): 913-20.](#)
7. de Winde, C.M. *et al.* (2015) Multispectral imaging reveals the tissue distribution of tetraspanins in human lymphoid organs. [Histochem Cell Biol. 144 \(2\): 133-46.](#)
8. Zuidscherwoude, M. *et al.* (2015) The tetraspanin web revisited by super-resolution microscopy. [Sci Rep. 5: 12201.](#)
9. Dunlock, V.E. *et al.* (2022) Tetraspanin CD53 controls T cell immunity through regulation of CD45RO stability, mobility, and function. [Cell Rep. 39 \(13\): 111006.](#)

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 $2-8^{\circ}\text{C}$ 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/MCA723G
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
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 (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP

Recommended Negative Controls

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

Product inquiries: www.bio-rad-antibodies.com/technical-support

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

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