

Datasheet: MCA2502

BATCH NUMBER 173352

Description:	MOUSE ANTI HUMAN CD74
Specificity:	CD74
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	Bu45
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)	▪			1/25 - 1/50
Immunohistology - Frozen (2)	▪			
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Immunofluorescence	▪			
Functional Assays (3)	▪			

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.

(1) Results maybe enhanced using membrane permeabilisation. Membrane permeabilization is required for this application. The use of Leucoperm (Product Code [BUF09](#)) is recommended for this purpose.

(2)The epitope recognized by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. We recommend the use of acetone fixation for frozen sections.

(3) This product contains sodium azide, removal by dialysis is recommended prior to use in functional assays.

Target Species	Human
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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)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	B lymphoblastoid cell line HFB1.
External Database Links	<p>UniProt: P04233 Related reagents</p> <p>Entrez Gene: 972 CD74 Related reagents</p>
Synonyms	DHLAG
RRID	AB_808457
Fusion Partners	Spleen cells from immunized mice were fused with cells of the Ag8.653 myeloma cell line.
Specificity	<p>Mouse anti Human CD74 antibody, clone Bu45 recognizes human CD74, a type II transmembrane protein, also known as the MHC class II associated invariant chain. The Bu45 antibody recognizes 33, 35 and 41 kDa isoforms of CD74. The CD74 molecule plays a critical role in the presentation of peptides, by the MHC class II antigens, to CD4 positive lymphocytes.</p> <p>CD74 is expressed on MHC class II positive cells including B cells, a subset of activated T cells, monocytes, dendritic cells and by various types of carcinoma. Expression of CD74 is primarily intracellular with moderate expression at the cell surface of B cells and monocytes. Mouse anti Human CD74 antibody, clone Bu45 binds to an epitope within the extracytoplasmic domain of the CD74 molecule, which is distal from the C-terminus.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Wraight, C.J. <i>et al.</i> (1990) Human major histocompatibility complex class II invariant chain is expressed on the cell surface. J Biol Chem. 265 (10): 5787-92. 2. van Bergen, J. <i>et al.</i> (1997) Efficient loading of HLA-DR with a T helper epitope by genetic exchange of CLIP. Proc Natl Acad Sci U S A. 94: 7499-502. 3. Beswick, E.J. <i>et al.</i> (2005) <i>Helicobacter pylori</i> binds to CD74 on gastric epithelial cells

and stimulates interleukin-8 production. [Infect Immun. 73: 2736-43.](#)

4. Barrera, C.A. *et al.* (2005) Polarized expression of CD74 by gastric epithelial cells. [J Histochem Cytochem. 53: 1481-9.](#)

5. Beswick, E.J. *et al.* (2006) The *Helicobacter pylori* urease B subunit binds to CD74 on gastric epithelial cells and induces NF-kappaB activation and interleukin-8 production. [Infect Immun. 74: 1148-55.](#)

6. Lapaque, N. *et al.* (2009) The HLA-DRalpha chain is modified by polyubiquitination. [J Biol Chem. 284: 7007-16.](#)

7. Goldenberg, D.M. *et al.* (2019) Subcutaneous administration of anti-CD74 antibody for systemic lupus erythematosus [US patent US 20170266281 A1](#)

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/MCA2502>

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 \(MCA928\)](#)

Recommended Useful Reagents

[LEUCOPERM \(BUF09\)](#)

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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