

Datasheet: MCA2502

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) **Membrane permeabilisation may enhance CD74 staining. Bio-Rad recommend the use of Leucoperm™ (product code [BUF09](#)) for this purpose.**

(2) **The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends 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
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 immunised 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. 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. 3. Lapaque, N. <i>et al.</i> (2009) The HLA-DRAalpha chain is modified by polyubiquitination. J Biol Chem. 284: 7007-16. 4. 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.](#)

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

6. 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.](#)

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: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Rabbit Anti Mouse IgG (STAR8...) [DyLight®800](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)

Recommended Negative Controls

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

Recommended Useful Reagents

[LEUCOPERM \(BUF09\)](#)

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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
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