

Datasheet: MCA2502F

BATCH NUMBER 159573

Description:	MOUSE ANTI HUMAN CD74:FITC
Specificity:	CD74
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	Bu45
Isotype:	IgG1
Quantity:	0.1 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)	▪			Neat - 1/5

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.

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 affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide (NaN ₃)		
Stabilisers	1% Bovine Serum Albumin		

Approx. Protein Concentrations	IgG concentration 0.1mg/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_844513
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 1×10^6 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-DRalpha 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. <i>et al.</i> (2005) Polarized expression of CD74 by gastric epithelial cells. J Histochem Cytochem. 53: 1481-9. 6. Beswick, E.J. <i>et al.</i> (2006) The <i>Helicobacter pylori</i> 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. <i>et al.</i> (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. This product is photosensitive and should be protected from light.

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/MCA2502F>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

[LEUCOPERM \(BUF09\)](#)

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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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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