

Datasheet: MCA2502F

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	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525
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 Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin						
Approx. Protein	IgG concentration 0.1mg/ml						

Concentrations

Immunogen B lymphoblastoid cell line HFB1.

External Database Links

UniProt:

[P04233](#) [Related reagents](#)

Entrez Gene:

[972](#) CD74 [Related reagents](#)

Synonyms DHLAG

RRID AB_844513

Fusion Partners Spleen cells from immunised mice were fused with cells of the Ag8.653 myeloma cell line.

Specificity **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.

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.

Flow Cytometry Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.

References

1. Wraight, C.J. *et al.* (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. *et al.* (2005) *Helicobacter pylori* binds to CD74 on gastric epithelial cells and stimulates interleukin-8 production. [Infect Immun. 73: 2736-43.](#)
 3. Lapaque, N. *et al.* (2009) The HLA-DRalpha chain is modified by polyubiquitination. [J Biol Chem. 284: 7007-16.](#)
 4. van Bergen, J. *et al.* (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](#)
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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
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
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Regulatory	For research purposes only
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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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