Datasheet: MCA2502

BATCH NUMBER 1708

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. Dialysis cassettes EQU003 are suitable for this purpose. "**

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	**UniProt:** P04233 Related reagents **Entrez Gene:** 972 CD74 Related reagents
Synonyms	DHLAG
RRID	AB_808457
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 $1x10^6$ 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

Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
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 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

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

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

Recommended Useful Reagents

LEUCOPERM (BUF09)

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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