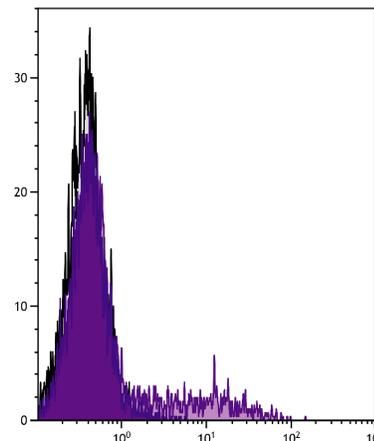




Mouse Anti-Human CD74

Cat. No.	Format	Size
9775-01	Purified (UNLB)	0.1 mg
9775-02	Fluorescein (FITC)	100 tests
9775-08	Biotin (BIOT)	100 tests
9775-09	R-phycoerythrin (PE)	100 tests
9775-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg



Human peripheral blood lymphocytes and monocytes were stained with Mouse Anti-Human CD74-UNLB (SB Cat. No. 9775-01) followed by Goat Anti-Mouse IgG₁, Human ads-PE (SB Cat. No. 1070-09).

Overview

Clone	LN2
Isotype	Mouse (BALB/c) IgG ₁ κ
Immunogen	Cell line SU-DHL-4 nuclei
Specificity	Human CD74; Mr 41, 35, 33 kDa
Alternate Name(s)	Invariant chain, Ii, class II-specific chaperone
Workshop	IV B129; V CD74.3

Description

CD74 represents a type II integral membrane protein known as MHC class II-associated invariant chain. It is moderately expressed on B cells and weakly on monocytes and macrophages. CD74 is also found on a subset of activated T cells, Langerhans cells, dendritic cells, and some epithelial cells. CD74 may play a role in antigen processing and presentation through intracellular transport and expression of class II molecules on the cell surface.

Applications

FC – Quality tested ^{4,6,10,11}
 IHC-FS – Reported in literature ^{1,2}
 IHC-PS – Reported in literature ^{1,3-5}
 ICC – Reported in literature ^{1,6}
 IP – Reported in literature ^{1,6}
 WB – Reported in literature ⁷
 Block – Reported in literature ^{8,9}

Working Dilutions

Flow Cytometry	Purified (UNLB) antibody	≤ 1 μg/10 ⁶ cells
	FITC, BIOT, and PE conjugates	10 μL/10 ⁶ cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL	

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Handling and Storage

- The purified (UNLB) antibody is supplied as 0.1 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 100 tests in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 100 tests in 1.0 mL of PBS/NaN₃. Store at 2-8°C.
- The R-phycoerythrin (PE) conjugate is supplied as 100 tests in 1.0 mL of PBS/NaN₃ and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. Epstein AL, Marder RJ, Winter JN, Fox RI. Two new monoclonal antibodies (LN-1, LN-2) reactive in B5 formalin-fixed, paraffin-embedded tissues with follicular center and mantle zone human B lymphocytes and derived tumors. *J Immunol.* 1984;133:1028-36. (Immunogen, IHC-FS, IHC-PS, ICC, IP)
2. Pack M, Trumpfheller C, Thomas D, Park CG, Granelli-Piperino A, Münz C, et al. DEC-205/CD205⁺ dendritic cells are abundant in the white pulp of the human spleen, including the border region between the red and white pulp. *Immunology.* 2007;123:438-46. (IHC-FS)
3. Sarker AB, Akagi T, Jeon HJ, Miyake K, Murakami I, Yoshino T, et al. Bauhinia purpurea--a new paraffin section marker for Reed-Sternberg cells of Hodgkin's disease. A comparison with Leu-M1 (CD15), LN2 (CD74), peanut agglutinin, and Ber-H2 (CD30). *Am J Pathol.* 1992;141:19-23. (IHC-PS)
4. Burton JD, Ely S, Reddy PK, Stein R, Gold DV, Cardillo TM, et al. CD74 is expressed by multiple myeloma and is a promising target for therapy. *Clin Cancer Res.* 2004;10:6606-11. (IHC-PS, FC)
5. Sepp N, Radaszkiewicz T, Meijer CJ, Smolle J, Seewann H, Fritsch P, et al. Specific skin manifestations in acute leukemia with monocytic differentiation. A morphologic and immunohistochemical study of 11 cases. *Cancer.* 1993;71:124-32. (IHC-PS)
6. Triantafilou K, Triantafilou M, Wilson KM, Cherry RJ, Fernandez N. Intracellular and cell surface heterotypic associations of human leukocyte antigen-DR and human invariant chain. *Hum Immunol.* 1999;60:1101-12. (ICC, IP, FC)
7. Imam A, Taylor CR, inventors; University of Southern California, assignee. Antigen specifically expressed on the surface of B cells and Hodgkin's cells. United States patent US 5304635. 1994 Apr 19. (WB)
8. Zhou C, Lu L, Tan S, Jiang S, Chen Y. HIV-1 glycoprotein 41 ectodomain induces activation of the CD74 protein-mediated extracellular signal-regulated kinase/mitogen-activated protein kinase pathway to enhance viral infection. *J Biol Chem.* 2011;286:44869-77. (Block)
9. Klasen C, Ohl K, Sternkopf M, Schachar I, Schmitz C, Heussen N, et al. MIF promotes B cell chemotaxis through the receptors CXCR4 and CD74 and ZAP-70 signaling. *J Immunol.* 2014;192:5273-84. (Block)
10. Aiello A, Delia D, Borrello MG, Biassoni D, Giardini R, Fontanella E, et al. Flow cytometric detection of the mitochondrial BCL-2 protein in normal and neoplastic human lymphoid cells. *Cytometry.* 1992;13:502-9. (FC)
11. Butrym A, Majewski M, Dzierżyczenia J, Kuliczowski K, Mazur G. High CD74 expression correlates with ZAP70 expression in B cell chronic lymphocytic leukemia patients. *Med Oncol.* 2013;30:560. (FC)