

1A-500-T025

Monoclonal Antibody to CD74 Allophycocyanin (APC) conjugated (25 tests)

Clone:	LN2
Isotype:	Mouse IgG1
Specificity:	The antibody LN2 is specific to CD74. It also reacts with activated neoplastic cells in T cell lymphomas, lymph node germinal center, mantle zone B cells, histiocytes, interdigitating reticulum cells, Langerhans cells, thymic dendritic cells and peripheral blood B lymphocytes. HLDA IV; WS Code B 129 HLDA V; WS Code B CD74.3
Immunogen:	SU-DHL-4 lymphoma cells
Species Reactivity:	Human, Other not tested
Preparation:	The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
Storage Buffer:	The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label. Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.
Usage:	The reagent is designed for Flow Cytometry analysis of human blood cells using 10 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.25 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD74 (the MHC II-associated invariant chain, Ii) is an type II transmembrane protein expressed in antigen-presenting cells, that serves as MHC II chaperone which promotes MHC II trafficking from the ER to endocytic compartments, prevents peptide binding in the ER and contributes to peptide editing in the MHC II compartment; it is also an accessory signaling molecule implicated e.g. in malignant B cell proliferation. Stimulation of cell surface CD74 leads to NFκB activation, which enables entry of the stimulated cell into the S phase. CD74 binds pro-inflammatory cytokine MIF with high affinity and interacts with CD44. Binding of Vpu, an HIV1 protein, to CD74 modulates MHC II presentation.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Starlets D, Gore Y, Binsky I, Haran M, Harpaz N, Shvidel L, Becker-Herman S, Berrebi A, Shachar I: Cell-surface CD74 initiates a signaling cascade leading to cell proliferation and survival. *Blood*. 2006 Jun 15;107(12):4807-16.
- *Stein R, Mattes MJ, Cardillo TM, Hansen HJ, Chang CH, Burton J, Govindan S, Goldenberg DM: CD74: a new candidate target for the immunotherapy of B-cell neoplasms. *Clin Cancer Res*. 2007 Sep 15;13(18 Pt 2):5556s-5563s.
- *Lantner F, Starlets D, Gore Y, Flaishon L, Yamit-Hezi A, Dikstein R, Leng L, Bucala R, Machluf Y, Oren M, Shachar I: CD74 induces TAp63 expression leading to B-cell survival. *Blood*. 2007 Dec 15;110(13):4303-11.
- *Hussain A, Wesley C, Khalid M, Chaudhry A, Jameel S: Human immunodeficiency virus type 1 Vpu protein interacts with CD74 and modulates major histocompatibility complex class II presentation. *J Virol*. 2008 Jan;82(2):893-902.
- *Gore Y, Starlets D, Maharshak N, Becker-Herman S, Kaneyuki U, Leng L, Bucala R, Shachar I: Macrophage migration inhibitory factor induces B cell survival by activation of a CD74-CD44 receptor complex. *J Biol Chem*. 2008 Feb 1;283(5):2784-92.
- *Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
- *Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).
- *Burton JD, Ely S, Reddy PK, Stein R, Gold DV, Cardillo TM, Goldenberg DM: CD74 is expressed by multiple myeloma and is a promising target for therapy. *Clin Cancer Res*. 2004 Oct 1;10(19):6606-11.
- *Badve S, Deshpande C, Hua Z, Lögdberg L: Expression of invariant chain (CD 74) and major histocompatibility complex (MHC) class II antigens in the human fetus. *J Histochem Cytochem*. 2002 Apr;50(4):473-82.
- *Leng L, Metz CN, Fang Y, Xu J, Donnelly S, Baugh J, Delohery T, Chen Y, Mitchell RA, Bucala R: MIF signal transduction initiated by binding to CD74. *J Exp Med*. 2003 Jun 2;197(11):1467-76.

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