

## APC anti-human CD74 Antibody

<b>Catalog# / Size</b>	326811 / 25 tests 326812 / 100 tests
<b>Clone</b>	LN2
<b>Regulatory Status</b>	RUO
<b>Workshop</b>	HCDM listed
<b>Other Names</b>	MHC Class II associated invariant chain, invariant chain, Ii, MHC class II chaperone, MIF receptor
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	CD74 is a type II transmembrane glycoprotein also known as MHC class II associated invariant chain, invariant chain, Ii, MHC class II chaperone, and MIF receptor. CD74 exists in four isoforms with molecular masses of 33, 35, 41, and 43 kD, depending on genetic splicing. CD74 is primarily expressed on antigen presenting cells, including B cells, monocytes/macrophages, dendritic cells, and Langerhans cells. It is also expressed by activated T cells and activated endothelial and epithelial cells as well as carcinomas of lung, renal, gastric and thymic origin. The primary function of CD74 is intracellular sorting of MHC class II molecules and regulation of exogenous peptide loading onto MHC class II. It is also involved in the modulation of B cell differentiation and positive selection of CD4 <sup>+</sup> T cells. It has been reported that CD74 binds MIF (macrophage migration inhibitory factor) and signals through CD44 to regulate innate and adaptive immunity. It is also reported that <i>H. pylori</i> infection occurs through urease B binding of CD74 on gastric epithelial cells, inducing gastric epithelial cell apoptosis, NF-κB activation, and IL-8 production.

### Product Details

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<b>Verified Reactivity</b>	Human, Cynomolgus, Rhesus
<b>Reported Reactivity</b>	African Green, Baboon
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	SU-DHL-4 cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Application Notes</b>	Clone LN2 is reactive with an epitope residing within 60 amino acids of the extracytoplasmic, COOH terminus of the protein. <sup>3</sup>  Additional reported applications (for the relevant formats) include: immunohistochemical staining <sup>1,2</sup> of frozen sections and formalin-fixed paraffin-embedded sections <sup>1,2</sup> , immunoprecipitation <sup>1</sup> , and immunofluorescence <sup>4</sup> .

- Application References**
1. Epstein AL, *et al.* 1984. *J. Immunol.* 133:1028. (IHC, IP)
  2. Marder RJ, *et al.* 1985. *Lab. Invest.* 52:497. (IHC)
  3. Wraight CJ, *et al.* 1990. *J. Biol. Chem.* 265:5787.
  4. Leng L, *et al.* 2003. *J. Exp. Med.* 197:1467. (IF)

- Product Citations**
1. Borrelli MR, *et al.* 2020. *Stem Cells Transl Med.* 1.347916667. [PubMed](#)

**RRID** AB\_2564388 (BioLegend Cat. No. 326811)  
AB\_2564389 (BioLegend Cat. No. 326812)

## Antigen Details

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<b>Structure</b>	Type II transmembrane glycoprotein, 33, 35, 41, 43 kD
<b>Distribution</b>	B cells and other antigen presenting cells, activated T cells, activated endothelial and epithelial cells, and certain carcinomas
<b>Function</b>	Regulates loading of exogenous peptides onto MHC class II and B cell differentiation, involved in positive selection of CD4 <sup>+</sup> T cells.
<b>Ligand/Receptor</b>	HLA-DR, MIF, <i>H. pylori</i> urease B, associates with CD44
<b>Cell Type</b>	Antigen-presenting cells, B cells, Endothelial cells, Epithelial cells, T cells, Tregs
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	CD Molecules, MHC Antigens
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Moldenhauer G, <i>et al.</i> 1999. <i>Immunology</i> 96:473.</li><li>2. Shi X, <i>et al.</i> 2006. <i>Immunity</i> 25:595.</li><li>3. Beswick EJ, <i>et al.</i> 2006. <i>Infect. Immun.</i> 74:1148.</li><li>4. Zola H, <i>et al.</i> 2007. <i>Leukocyte and Stromal Cell Molecules: The CD Markers</i> Wiley-Liss A John Wiley &amp; Sons Inc, Publication</li></ol>
<b>Gene ID</b>	<a href="#">972</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

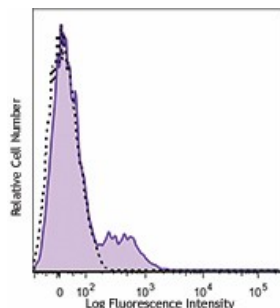
## Other Formats

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Purified anti-human CD74, PE anti-human CD74, APC anti-human CD74, TotalSeq™-C0935 anti-human CD74 Antibody, TotalSeq™-D0935 anti-human CD74, TotalSeq™-B0935 anti-human CD74

## Product Data

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Human peripheral blood lymphocytes were stained with anti-CD74 (clone LN2) APC (filled histogram), or mouse IgG1, κ APC isotype control (open histogram).

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