

PE anti-human CD74 Antibody

Catalog# / Size	326807 / 25 tests 326808 / 100 tests
Clone	LN2
Regulatory Status	RUO
Workshop	HCDM listed
Other Names	MHC Class II associated invariant chain, invariant chain, Ii, MHC class II chaperone, MIF receptor
Isotype	Mouse IgG1, κ
Description	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 ⁺ 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

Verified Reactivity	Human, Cynomolgus, Rhesus
Reported Reactivity	African Green, Baboon
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	SU-DHL-4 cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . 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.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	Clone LN2 is reactive with an epitope residing within 60 amino acids of the extracytoplasmic, COOH terminus of the protein. ³ Additional reported applications (for the relevant formats) include: immunohistochemical staining ^{1,2} of frozen sections and formalin-fixed paraffin-embedded sections ^{1,2} , immunoprecipitation ¹ , and immunofluorescence ⁴ .

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. Fernandez-Cuesta L, *et al.* 2014. *Cancer Discovery.* 4:415. [PubMed](#)
2. Morris K, *et al.* 2014. *PLoS One.* 9:98656. [PubMed](#)
3. van Kempen TS, *et al.* 2020. *Eur J Immunol.* 50:1209. [PubMed](#)
4. Obradovic A, *et al.* 2021. *Cell.* 184(11):2988-3005.e16. [PubMed](#)
5. Kong XF, *et al.* 2018. *Nat Immunol.* 19:973. [PubMed](#)
6. Aldeghaither DS, *et al.* 2019. *Cancer Immunol Res.* 7:230. [PubMed](#)
7. Zimmerman KA, *et al.* 2019. *J Am Soc Nephrol.* 30:767. [PubMed](#)
8. Tarnowski M, *et al.* 2010. *Mol Cancer Res.* 1.255555556. [PubMed](#)

RRID

AB_2229059 (BioLegend Cat. No. 326807)
AB_2075505 (BioLegend Cat. No. 326808)

Antigen Details

Structure	Type II transmembrane glycoprotein, 33, 35, 41, 43 kD
Distribution	B cells and other antigen presenting cells, activated T cells, activated endothelial and epithelial cells, and certain carcinomas
Function	Regulates loading of exogenous peptides onto MHC class II and B cell differentiation, involved in positive selection of CD4 ⁺ T cells.
Ligand/Receptor	HLA-DR, MIF, <i>H. pylori</i> urease B, associates with CD44
Cell Type	Antigen-presenting cells, B cells, Endothelial cells, Epithelial cells, T cells, Tregs
Biology Area	Immunology
Molecular Family	CD Molecules, MHC Antigens
Antigen References	<ol style="list-style-type: none">1. Moldenhauer G, <i>et al.</i> 1999. <i>Immunology</i> 96:473.2. Shi X, <i>et al.</i> 2006. <i>Immunity</i> 25:595.3. Beswick EJ, <i>et al.</i> 2006. <i>Infect. Immun.</i> 74:1148.4. Zola H, <i>et al.</i> 2007. <i>Leukocyte and Stromal Cell Molecules: The CD Markers</i> Wiley-Liss A John Wiley & Sons Inc, Publication
Gene ID	972

Related Protocols

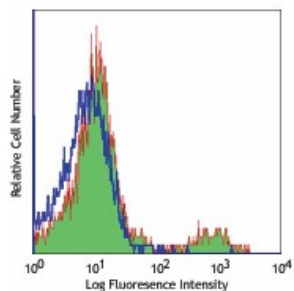
[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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

Human peripheral blood lymphocytes
stained with LN2 PE



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