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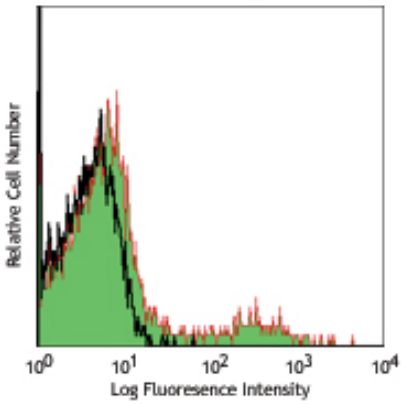
Product Data Sheet

Biotin anti-human CD74

Catalog # / Size: 326804 / 100 µg
Clone: LN2
Isotype: Mouse IgG1, κ
Immunogen: SU-DHL-4 cells
Reactivity: Human, **Cross-Reactivity:** Baboon, Rhesus
Preparation: The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration: 0.5 mg/ml
Storage: The antibody solution should be stored undiluted at 4°C. **Do not freeze.**



Human peripheral blood lymphocytes stained with biotinylated LN2, followed by Sav-PE

Applications:

Applications: FC - *Quality tested*
IHC - *Reported in the literature*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 1.0 µg per 10^6 cells in 100 µl volume or 100 µl whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Additional reported applications (for the relevant formats) include: immunohistochemical staining[1,2] of frozen sections and formalin-fixed paraffin-embedded sections[1,2], and immunoprecipitation[1].

Application References:
1. Epstein AL, *et al.*1984. *J. Immunol.* 133:1028.
2. Marder RJ, *et al.* 1985. *Lab. Invest.* 52:497.

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 H. pylori infection occurs through urease B binding of CD74 on gastric epithelial cells, inducing gastric epithelial cell apoptosis, NF-κB activation, and IL-8 production.

Antigen References:
1. Moldenhauer G, *et al.* 1999. *Immunology* 96:473.
2. Shi X, *et al.* 2006. *Immunity* 25:595.
3. Beswick EJ, *et al.* 2006. *Infect. Immun.* 74:1148.
4. Zola H,*et al.* 2007. Leukocyte and Stromal Cell Molecules:The CD Markers Wiley-Liss A John Wiley & Sons Inc, Publication

Related Products:

Product	Clone	Application
Biotin Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC
APC Streptavidin		FC, ICFC
PE Streptavidin		FC, ICFC
Cell Staining Buffer		FC, ICC, ICFC
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC

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