

Alexa Fluor® 647 anti-human CD74

Catalog # / Size: 326809 / 25 tests
326810 / 100 tests

Clone: LN2

Isotype: Mouse IgG1, κ

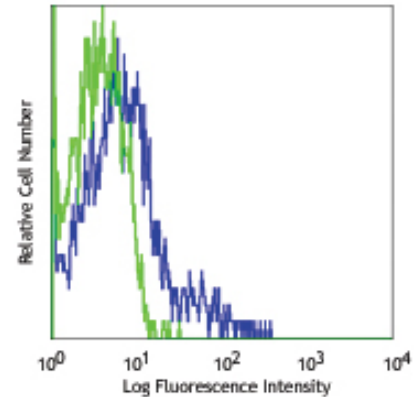
Immunogen: SU-DHL-4 cells

Reactivity: Human, **Cross-Reactivity:** Baboon, Rhesus

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 647.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood lymphocytes stained with LN2 Alexa Fluor® 647

Applications:

Applications: FC - Quality tested

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 5 μ l per million cells or 5 μ l per 100 μ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.

** Alexa Fluor® is a registered trademark of Molecular Probes, Inc. Alexa Fluor® dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

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 immunoprecipitation¹.

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- κ B 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
Cell Staining Buffer		FC, ICC, ICFC
Alexa Fluor® 647 Mouse IgG1, κ Isotype Ctrl (FC)	MOPC-21	FC, IF
Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC



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