

CD74 (PIN.1)

Type	Number of tests	Volume per test (μL)	Total volume (μL)	Catalog number
FITC	50	5	250	6088012
	100	5	500	6088015

Antigen:	CD74
Immunogen:	An EBV-transformed B cell line from a patient with MHC class II deficiency
Host/Isotype:	Mouse, IgG1,κ
Reactivity:	Human
Purity:	>90% pure tested via polyacrylamide gel electrophoresis (PAGE)
Formulation:	PBS, pH7.2, 0.09% NaN ₃ and 0.2% (w/v) BSA
Storage:	Store at 2-8°C and protected from prolonged exposure to light. Do not freeze.
Applications:	Flow Cytometry.

Application Information

Each lot was pre-titrated and tested by flow cytometric so that 5μl of this product will stain 1 million cells in a 100μl staining volume or 100μl of whole blood. Antibody reactivity should be empirically titrated for optimal performance for the application of interest.

Antigen Information

PIN.1 recognizes a ~33-35 kDa protein doublet, corresponding to the apparent molecular mass of the p33 and p35 forms of the cytoplasmic tail of human CD74, a type II transmembrane glycoprotein. It is also known as invariant chain or MHC class II chaperone or MIF (macrophage migration inhibitory factor) receptor. It plays a critical role in the antigen processing leading to antigen presentation by MHC class II to CD4+ T cells. Antigen presenting cells such as B cells, monocytes/macrophages, dendritic cells, and Langerhans cells as well as activated T, carcinomas of lung, renal, gastric and thymic origins express CD74. The CD44 is an integral member of CD74 receptor complex and required for the CD74 signal transduction. CD74's cytoplasmic domain binds chromatin and regulates transcription and expression of genes involved in immune regulation, cell survival, and hematopoietic cancers. Published report claimed that the urease B subunit released by *H. pylori* binds to CD74 of gastric epithelial cells leading to induce NF-κB activation and IL-8 production.

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. Naama Gil-Yaron *et al.*, 2017. *Proc. Natl Acad Sci USA* 114(3): 562–567.

Terms and Conditions

This is a GMP product meant for research use only (RUO) and not intended for diagnostic testing.