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**CD74 (PIN.1)****Analyte Specific Reagent (ASR)\***

Type	Number of tests	Volume per test (μL)	Total volume (μL)	Catalog number
FITC	50	5	250	4088012
	100	5	500	4088015

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

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**Antigen Information**

The clone PIN.1, a mouse monoclonal antibody, recognizes an ~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. CD74 is known as an invariant chain or MHC class II chaperone or MIF (macrophage migration inhibitory factor) receptor. It plays a critical role in antigen processing, resulting in 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 cells, carcinomas of lung, renal, gastric and thymic origins express CD74. CD44 is an integral member of the CD74 receptor complex and required for 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. Gil-Yarom N, et al. 2017. *Proc. Natl Acad Sci USA*. 114(3): 562–567.

\*Analyte Specific Reagent. The analytical and performance characteristics of this ASR product are not established.