

Product Datasheet

CD74 Antibody (Biotin) (orb146939)

Catalog Number	orb146939
Category	Antibodies
Description	<p>Mouse monoclonal to CD74 (Biotin). CD74 is a non-polymorphic type II integral membrane protein. It has a short N-terminal cytoplasmic tail of 28 amino acids, followed by a single 24-aa transmembrane region and an approximately 150-aa luminal domain. The CD74 chain is thought to function mainly as an MHC class II chaperone, which promotes ER exit of MHC class II molecules, directs them to endocytic compartments, prevents peptide binding in the ER, and contributes to peptide editing in the MHC class II compartment. Class II MHC and li expression was believed to be restricted to classical antigen-presenting cells (APC); however, during inflammation, other cell types, including mucosal epithelial cells, have also been reported to express class II MHC molecules. Experiments that investigate cell-surface CD74 are complicated by the fact that CD74 remains on the cell surface for a very short time. The surface half-life of CD74 was calculated to be fewer than 10 minutes. CD74 however has also recently been shown to have a role as an accessory-signaling molecule because of its high-affinity binding to the pro-inflammatory cytokine, macrophage migration-inhibitory factor (MIF). The restricted expression of CD74 by normal tissues and its very rapid internalization make CD74 an attractive therapeutic target for both cancer and immunologic diseases..</p>
Target	CD74
Clonality	Monoclonal
Species/Host	Mouse
Isotype	IgG1
Conjugation	Biotin
Reactivity	Human, Mouse

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Concentration	1 mg/ml
Buffer/Preservatives	136.36mM Ethanolamine, 133.23 mM Chlorides, 9.55mM Phosphates, 9.55mM Sodium Bicarbonate
Purification	Protein G Purified
Immunogen	Human CD74 invariant chain synthetic peptide
UniProt ID	P04233
MW	33-35kDa
Tested applications	FACS, FC, ICC, IF, IHC, IP, WB
Dilution range	WB (1:1000), IHC (1:100), ICC/IF (1:50)
Application notes	1 µg/ml was sufficient for detection of CD74 in 20 µg of PALA cell lysates by colorimetric immunolot analysis using goat anti-mouse IgG: AP as the secondary antibody.
Specificity	Detects ~33-35kDa protein doublet corresponding to the molecular mass of the p33 and p35 forms of human CD74.
Clone Number	PIN.1
Storage	Conjugated antibodies should be stored according to the product label
Note	For research use only
Entrez	972
NCBI	NP_001020329.1
Expiration Date	12 months from date of receipt.

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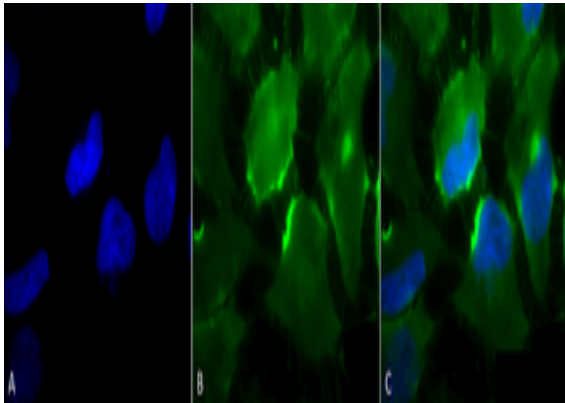
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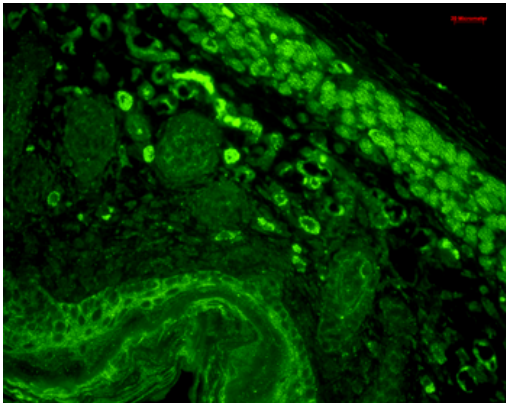
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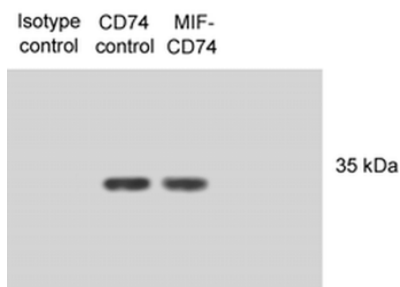
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Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-CD74 Monoclonal Antibody, Clone PIN 1.1. Tissue: Cervical cancer cell line (HeLa). Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-CD74 Monoclonal Antibody at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cell membrane. Endoplasmic reticulum membrane. Golgi apparatus. Endosome. Lysosome. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-CD74 Antibody. (C) Composite.



Immunohistochemistry analysis using Mouse Anti-CD74 Monoclonal Antibody, Clone PIN 1.1. Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-CD74 Monoclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Beautiful basal to suprabasal staining in epidermis, dermis, hair follicles and muscle.



Western Blot analysis of Human N87 cell lysates showing detection of CD74 protein using Mouse Anti-CD74 Monoclonal Antibody, Clone PIN 1.1. Primary Antibody: Mouse Anti-CD74 Monoclonal Antibody at 1:1000. Lysates treated with macrophage inhibitory factor (MIF).

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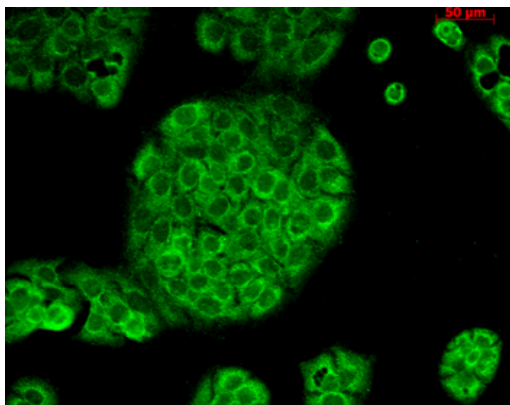
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Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-CD74 Monoclonal Antibody, Clone PIN 1.1. Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol for 10 minutes at -20°C. Primary Antibody: Mouse Anti-CD74 Monoclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Cytoplasmic Staining.

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