

Datasheet for ABIN2481699
anti-CD74 antibody (Atto 488)



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4 Images

Overview

Quantity:	100 µg
Target:	CD74
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD74 antibody is conjugated to Atto 488
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunofluorescence (IF), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunocytochemistry (ICC)

Product Details

Immunogen:	Human CD74 invariant chain synthetic peptide
Clone:	PIN-1
Isotype:	IgG1
Specificity:	Detects ~33-35 kDa protein doublet corresponding to the molecular mass of the p33 and p35 forms of human CD74.
Cross-Reactivity:	Human, Mouse
Purification:	Protein G Purified

Target Details

Target:	CD74
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Target Details

Alternative Name: CD74 ([CD74 Products](#))

Background: 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 (1). 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 Ii 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 (2). 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 (3). 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) (3). 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 (4).

Gene ID: 972

NCBI Accession: [NP_001020329](#)

UniProt: [P04233](#)

Pathways: [Positive Regulation of Immune Effector Process](#), [Production of Molecular Mediator of Immune Response](#), [Negative Regulation of intrinsic apoptotic Signaling](#), [Cancer Immune Checkpoints](#)

Application Details

Application Notes:

- WB (1:1000)
- IHC (1:100)
- ICC/IF (1:50)
- optimal dilutions for assays should be determined by the user.

Comment: 1 µg/ml of ABIN2481699 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.

Restrictions: For Research Use only

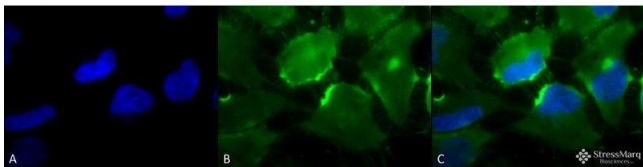
Handling

Format: Liquid

Handling

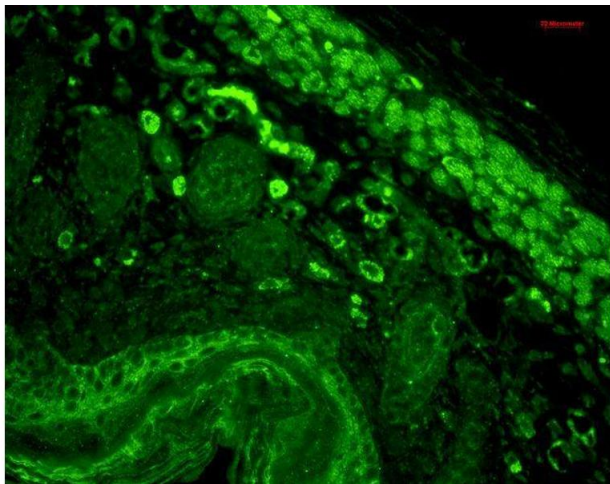
Concentration:	1 mg/mL
Buffer:	PBS pH 7.2, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

Images



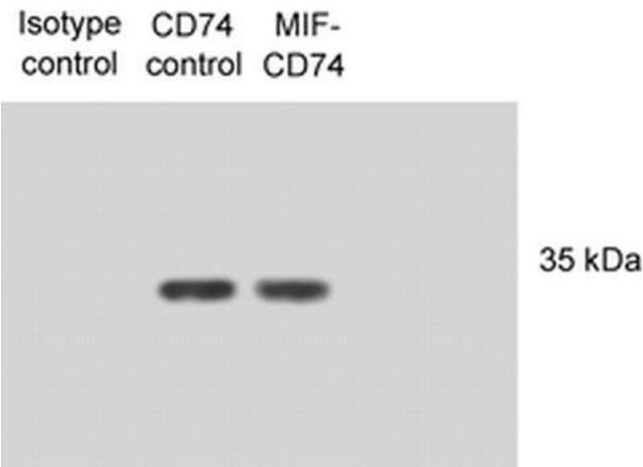
Immunofluorescence (fixed cells)

Image 1. Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-CD74 Monoclonal Antibody, Clone PIN 1.1 . Tissue: HeLa Cells. 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

Image 2. 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 Blotting

Image 3. 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). Courtesy of: Victor E. Reyes, University of Texas Medical Branch, USA.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN2481699.