

CD74 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AW5503

Specification

CD74 Antibody - Product Information

Application	IHC, WB, FC,E
Primary Accession	P04233
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	H=34,26,18 KDa
Isotype	IgG2b, κ
Antigen Source	HUMAN

CD74 Antibody - Additional Information

Gene ID 972

Antigen Region
1-232

Other Names

HLA class II histocompatibility antigen gamma chain, HLA-DR antigens-associated invariant chain, Ia antigen-associated invariant chain, Ii, p33, CD74, CD74, DHLAG

Dilution

IHC~~1:400
WB~~1:1000
FC~~1:25

Target/Specificity

This antibody is generated from a mouse immunized with a recombinant protein.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

CD74 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CD74 Antibody - Protein Information

Name CD74 ([HGNC:1697](#))

Synonyms DHLAG

Function

Plays a critical role in MHC class II antigen processing by stabilizing peptide-free class II alpha/beta heterodimers in a complex soon after their synthesis and directing transport of the complex from the endoplasmic reticulum to the endosomal/lysosomal system where the antigen processing and binding of antigenic peptides to MHC class II takes place. Serves as cell surface receptor for the cytokine MIF. [Isoform p41]: Stabilizes the conformation of mature CTSL by binding to its active site and serving as a chaperone to help maintain a pool of mature enzyme in endocytic compartments and extracellular space of antigen-presenting cells (APCs). Has antiviral activity by stymieing the endosomal entry of Ebola virus and coronaviruses, including SARS-CoV-2 (PubMed:32855215). Disrupts cathepsin-mediated Ebola virus glycoprotein processing, which prevents viral fusion and entry. This antiviral activity is specific to p41 isoform (PubMed:32855215).

Cellular Location

Cell membrane; Single-pass type II membrane protein. Endoplasmic reticulum membrane. Golgi apparatus, trans-Golgi network. Endosome. Lysosome. Secreted. Note=Transits through a number of intracellular compartments in the endocytic pathway. It can either undergo proteolysis or reach the cell membrane

Tissue Location

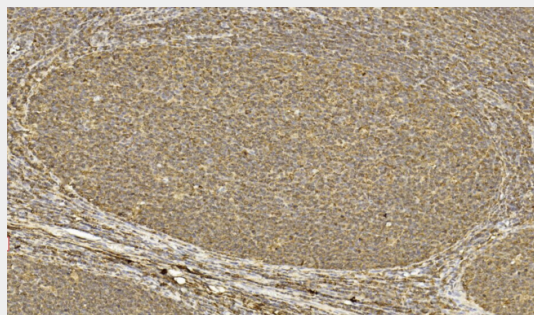
Detected in urine (at protein level). [Isoform p33]: In B cells, represents 70% of total CD74 expression.

CD74 Antibody - Protocols

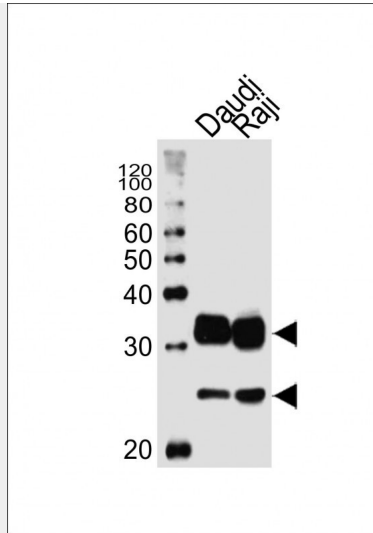
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

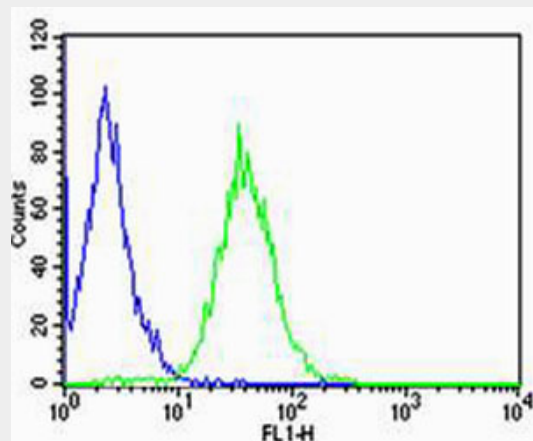
CD74 Antibody - Images



Immunohistochemical analysis of paraffin-embedded Human tonsil section using Pink1(Cat#AW5503). AW5503 was diluted at 1:400 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



All lanes : Anti-CD74 Antibody at 1:1000 dilution Lane 1: Daudi whole cell lysates Lane 2: Raji whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgG (H+L), Peroxidase conjugated at 1/5,000 dilution Predicted band size : 34 kDa Blocking/Dilution buffer: 5% NFDN/TBST.



Flow cytometric analysis of Raji cells using CD74(green, Cat#AW5503) compared to an isotype control of mouse IgG2b(blue). AW5502 was diluted at 1:25 dilution. An Alexa Fluor® 488 goat anti-mouse IgG at 1:400 dilution was used as the secondary antibody.

CD74 Antibody - Background

Plays a critical role in MHC class II antigen processing by stabilizing peptide-free class II alpha/beta heterodimers in a complex soon after their synthesis and directing transport of the complex from the endoplasmic reticulum to the endosomal/lysosomal system where the antigen processing and binding of antigenic peptides to MHC class II takes place. Serves as cell surface receptor for the cytokine MIF.

CD74 Antibody - References

- Claesson L.,et al.Proc. Natl. Acad. Sci. U.S.A. 80:7395-7399(1983).
- Strubin M.,et al.EMBO J. 3:869-872(1984).
- Kudo J.,et al.Nucleic Acids Res. 13:8827-8841(1985).
- O'Sullivan D.M.,et al.Proc. Natl. Acad. Sci. U.S.A. 83:4484-4488(1986).
- Kalnina N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.