

CD74 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM2257a

Specification

CD74 Antibody - Product Information

| | |
|-------------------|----------------------------------|
| Application | WB, FC,E |
| Primary Accession | P04233 |
| Reactivity | Human |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype | IgG2b,κ |

CD74 Antibody - Additional Information

Gene ID 972

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

Target/Specificity

This antibody is generated from a mouse immunized with a KLH conjugated synthetic peptide between 1-232 amino acids from human.

Dilution

WB~~1:1000

FC~~1:25

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

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

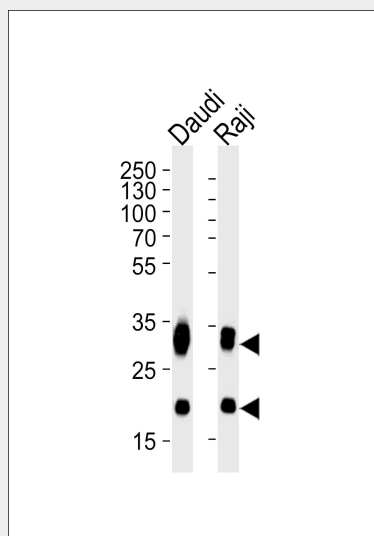
Detected in urine (at protein level). [Isoform p33]: In B cells, represents 70% of total CD74 expression.

CD74 Antibody - Protocols

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

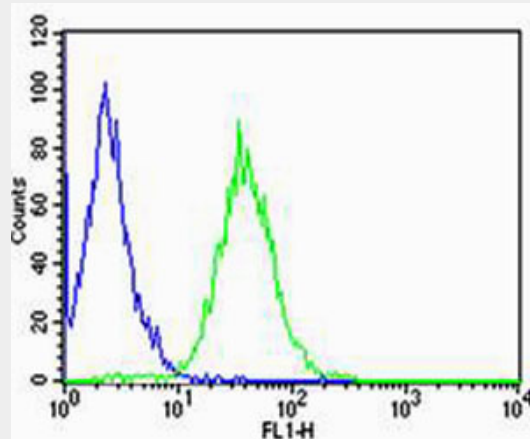
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

CD74 Antibody - Images



Western blot analysis of lysates from Daudi, Raji cell line (from left to right), using CD74 Antibody (Cat. # AM2257a). AM2257a was diluted at 1:1000 at each lane. A goat anti-mouse IgG

H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35µg per lane.



Flow cytometric analysis of Raji cells using CD74(green, Cat#AM2257a) compared to an isotype control of mouse IgG2b(blue). AM2257a 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).
- Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.