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CD74 Antibody (clone PIN.1)

Mouse Monoclonal Antibody
Catalog # ALS14971

Specification

CD74 Antibody (clone PIN.1) - Product Information

Application	**WB**
Primary Accession	P04233
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**34kDa KDa**

CD74 Antibody (clone PIN.1) - 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
Detects ~33-35 kD protein doublet, corresponding to the molecular mass of the p33 and p35 forms of human CD74 on SDS-PAGE immunoblots.

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
CD74 Antibody (clone PIN.1) is for research use only and not for use in diagnostic or therapeutic procedures.

CD74 Antibody (clone PIN.1) - 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

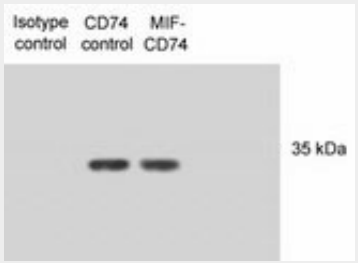
Tissue Location
Detected in urine (at protein level). [Isoform p33]: In B cells, represents 70% of total CD74 expression.

CD74 Antibody (clone PIN.1) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CD74 Antibody (clone PIN.1) - Images



CD-74 (PIN 1.1) N87 lysates mixed with macrophage inhibitory factor.

CD74 Antibody (clone PIN.1) - 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 (clone PIN.1) - 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.

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