

CD74 Antibody

Purified Mouse Monoclonal Antibody (Mab)

Catalog # AM2257a

Product Information

Application	WB, FC, E
Primary Accession	P04233
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b, κ
Clone Names	1267CT820.116.140.154
Calculated MW	33516

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 E~~Use at an assay dependent concentration.
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.

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.

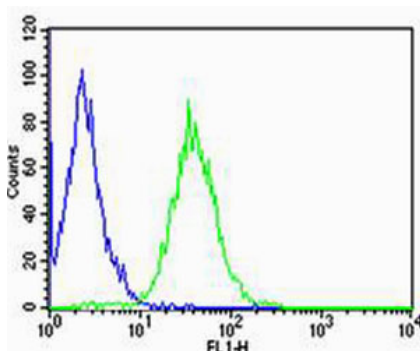
Background

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.

References

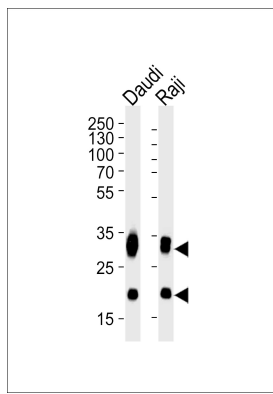
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 O'Sullivan D.M.,et al.Proc. Natl. Acad. Sci. U.S.A. 83:4484-4488(1986).
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Images



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.

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.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.