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CD74 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM2257a

Product Information

Application	WB, FC, E
Primary Accession	P04233
Reactivity	Human
Predicted	Bovine, Canine
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.

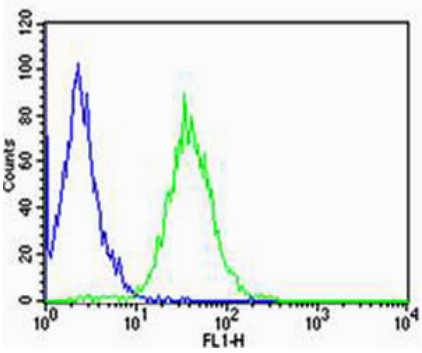
Background

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

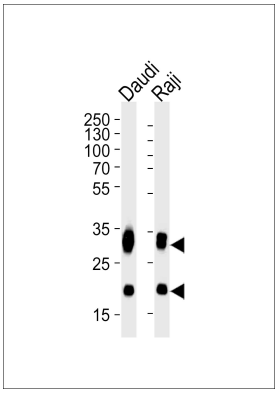
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Strubin M.,et al.EMBO J. 3:869-872(1984).
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Images



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'.