CD74 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CD74, Monoclonal Antibody
Full Product Name	CD74 (HLA Class II Histocompatibility Antigen gamma Chain, HLA-DR Antigens-associated Invariant Chain, Ia Antigen-associated Invariant Chain) (MaxLight 650)
Product Gene Name	anti-CD74 antibody
Clonality	Monoclonal
Isotype	IgG1,k
Clone Number	LN-2
Host	Mouse
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
Purity/Purification	Purified by Protein G Affinity Chromatography
Specificity	Recognizes human CD74. Species Crossreactivity: mouse. Can be used for the identification of B cell lymphoma and leukemias. It also stains activated neoplastic cells in T cell lymphomas and Sternberg-reed cells.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	18,328 Da
OMIM	142790
3D Structure	ModBase 3D Structure for P04233
Immunogen	SU-DHL-4 lymphoma cells
Conjugate	MaxLight650
Positive Control	Daudi Cells. Tonsil or lymph node
Product Categories/Family for anti-CD74 antibody	Antibodies; CD Markers
Applications Tested/Suitable for anti-CD74 antibody	Flow Cytometry (FC/FACS), FLISA, Immunofluorescence (IF), Immunohistochemistry (IHC), Immunoprecipitation (IP), Western Blot (WB)
Application Notes for anti-CD74 antibody	FC/FACS: 0.5-1ug/10e6 cells IP: 1-2ug/500ug protein lysate IF: 1-2ug/ml WB: 0.5-1ug/ml Applications are based on unconjugated antibody.
Related Product Information for anti-CD74 antibody	MBS6225653 is an antibody targeting CD74. Also known as CD74 (HLA Class II Histocompatibility Antigen gamma Chain, HLA-DR Antigens-associated Invariant Chain, Ia Antigen-associated Invariant Chain) (MaxLight 650). Reactive in Human, Mouse. Host: Mouse.
Product References and Citations for anti-CD74 antibody	1. Leng et.al JEM 197 (11); 1467-1476 (June 2003) 2. Becker-Herman et.al MBC 16(11) 5061-5069 (November 2005) 3. Diana et.al Blood 107(12) 4807-4816 (15 June 2006)

Other Notes	Small volumes of anti-CD74 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD74. It may not necessarily be applicable to this product.

NCBI GI #	68448537
NCBI GeneID	972
NCBI Accession #	NP_001020329
UniProt Primary Accession #	P04233
UniProt Secondary Accession #	Q14597; Q29832; Q5U0J8; Q8SNA0; Q8WLP6; A8K7R1; B4DNE8; D3DQG3; D3DQG4
UniProt Related Accession #	P04233
GenBank Nucleotide #	NM_001025158
NCBI Official Full Name	HLA class II histocompatibility antigen gamma chain isoform c
NCBI Official Synonym Full Names	CD74 molecule, major histocompatibility complex, class II invariant chain
NCBI Official Symbol	CD74
NCBI Official Synonym Symbols	II; DHLAG; HLADG; Ia-GAMMA
UniProt Protein Name	HLA class II histocompatibility antigen gamma chain
UniProt Synonym Protein Names	HLA-DR antigens-associated invariant chain; Ia antigen-associated invariant chain; Ii; p33; CD_antigen: CD74
Protein Family	H-2 class II histocompatibility antigen
UniProt Gene Name	CD74
UniProt Synonym Gene Names	DHLAG; Ii
UniProt Entry Name	HG2A_HUMAN
NCBI Protein Information	HLA class II histocompatibility antigen gamma chain; CD74 antigen (invariant polypeptide of major histocompatibility complex, class II antigen-associated); HLA-DR antigens-associated invariant chain; HLA-DR-gamma; Ia-associated invariant chain; MHC HLA-DR

UniProt Comments for CD74	CD74: 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. A chromosomal aberration involving CD74 is found in a non-small cell lung tumor. Results in the formation of a CD74- ROS1 chimeric protein. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Endoplasmic reticulum; Membrane protein, integral; Receptor, cytokine Chromosomal Location of Human Ortholog: 5q32 Cellular Component: lysosomal lumen; cell surface; lysosomal membrane; integral to membrane; MHC class II protein complex; Golgi membrane; multivesicular body; membrane; plasma membrane; vacuole; trans-Golgi network membrane; intracellular; external side of plasma membrane Molecular Function: identical protein binding; hematopoietin/interferon-class (D200-domain) cytokine receptor activity; protein binding; beta-amyloid binding; cytokine binding; MHC class II protein binding, via antigen binding groove; nitric-oxide synthase binding; MHC class II protein binding Biological Process: activation of MAPK activity; positive regulation of dendritic cell antigen processing and presentation; antigen processing and presentation of exogenous peptide antigen via MHC class II; defense response; prostaglandin biosynthetic process; signal transduction; negative regulation of T cell differentiation; negative regulation of DNA damage response, signal transduction by p53 class mediator; intracellular protein transport; positive regulation of fibroblast proliferation; negative regulation of mature B cell apoptosis; positive regulation of B cell proliferation; protein complex assembly; positive thymic T cell selection; negative regulation of peptide secretion; positive regulation of T-helper 2 type immune response; chaperone cofactor-dependent protein folding; regulation of macrophage activation; T cell selection; negative thymic T cell selection; cell proliferation; positive regulation of peptidyl-tyrosine phosphorylation; positive regulation of T cell differentiation; immunoglobulin mediated immune response; positive regulation of cytokine and chemokine mediated signaling pathway; antigen processing and presentation of endogenous antigen; negative regulation of apoptosis
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