CD74 monoclonal antibody

Catalog: MB66115 Host: Mouse Reactivity: Human

BackGround:

CD74, which is also known as the MHC Class II-associated invariant chain (Ii), is a type II transmembrane glycoprotein that plays a critical role in the antigen presentation process as a chaperone of MHC Class II proteins. It is expressed at high levels on B cells and to a lesser extent on numerous antigen presenting cell (APC) types including dendritic cells, Langerhans cells, monocytes, and macrophages as well as non-traditional APCs such as epithelial cells. CD74 was initially identified for its ability to regulate the folding and intracellular trafficking of newly synthesized MHC Class II molecules. Following expression, CD74 self-assembles as a trimer that serves as a scaffold for the assembly of MHC Class II molecules. Through this interaction, CD74 blocks the peptide binding cleft of MHC Class II molecules and prevents their premature association with endogenous polypeptides . Binding to CD74 also facilitates the translocation of MHC Class II molecules from the endoplasmic reticulum to the endocytic compartments during antigen presentation . In addition to its role as an MHC Class II chaperone, CD74 is also the receptor for macrophage migration-inhibitory factor (MIF). Binding to CD74 and its co-receptor, CD44, has been shown to induce the activation of the NFkB and ERK pathways to promote cell proliferation and survival signals . Recent studies have identified CXCR2 and CXCR4 as co-receptors for CD74 where MIF binding to CD74 complexes contributes to MIF-mediated monocyte chemotaxis and the induction of Akt signaling, respectively . Increased CD74 surface expression has been reported under inflammatory conditions and in certain types of cancer cells implying a potential role in tumorigenesis .

Product:

Mouse IgG1. Liquid in PBS containing 50% glycerol, 0.2% BSA and 0.01% sodium azide.

Molecular Weight:

~ 31 kDa

Swiss-Prot:

P04233

Purification&Purity:

The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

IHC (1/100 - 1/300)

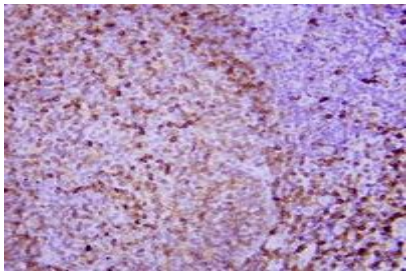
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

Specificity:

Recognizes endogenous levels of CD74 protein.

DATA:



Immunohistochemical analysis of CD74 staining in human tonsil formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Note:

For research use only, not for use in diagnostic procedure.

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