## Overview

**Product name**  
Anti-CD74 antibody [PIN.1]  

**Description**  
Mouse monoclonal [PIN.1] to CD74  

**Host species**  
Mouse  

**Specificity**  
This antibody detects an ~33-35 kDa protein doublet, corresponding to the apparent molecular mass of the p33 and p35 forms of human CD74.  

**Tested applications**  
Suitable for:  
- IHC-P  
- ICC/IF  
- WB  
- IP  
- Flow Cyt  

**Species reactivity**  
Reacts with:  
- Human  

**Immunogen**  
Synthetic peptide:  
DQKVMDQQRDLISNNE  
conjugated to KLH, corresponding to amino acids 12-28 of Human CD74.  

**Epitope**  
The epitope is in a region of the cytoplasmic tail of human CD74 which is common to all isoforms.  

**Positive control**  
Human B lymphoblastoid cell lysate. IF/ICC: HepG2 cell line.  

## Properties

**Form**  
Liquid  

**Storage instructions**  
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.  

**Storage buffer**  
- pH: 7.20  
- Preservative: 0.09% Sodium azide  
- Constituents: PBS, 50% Glycerol  

**Purity**  
Protein G purified  

**Purification notes**  
This antibody was purified by immunoaffinity chromatography.  

**Clonality**  
Monoclonal  

**Clone number**  
PIN.1  

**Isotype**  
IgG1  

## Applications
Our **Abpromise guarantee** covers the use of **ab22603** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>IHC-P</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
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<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 10 µg/ml.</td>
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<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Predicted molecular weight: 33 kDa.</td>
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<tr>
<td>IP</td>
<td></td>
<td>Use a concentration of 12 µg/ml.</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use 1 µg for 10^6 cells.</td>
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**Target**

**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.

**Sequence similarities**

Contains 1 thyroglobulin type-1 domain.

**Cellular localization**


**Images**

Ab22603 staining CD74 in human liver. Staining is localized to the membrane and cytoplasm.

Left panel: with primary antibody at 4µg/ml. Right panel: isotype control.

Sections were stained using an automated system (Dako Autostainer plus), at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 antigen retrieval buffer, EDTA pH 9.0 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and...
incubation time (overnight incubation), and amplification may be req

ICC/IF image of ab22603 stained HepG2 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab22603, 10µg/ml) overnight at +4°C. The secondary antibody (green) was ab96879, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM

ICC/IF image of ab22603 staining CD74 in HaCaT cells. Cells were fixed with cold 100% methanol for 10 minutes at -20°C. Samples were incubated with primary antibody at 1:100 dilution for 1 hour at room temperature. A FITC Goat anti-mouse (green) was used as a secondary antibody at 1:50 dilution for 1 hour at room temperature.

Overlay histogram showing Raji cells stained with ab22603 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab22603, 1µg/1x10^5 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^5 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in Raji cells fixed with 4% paraformaldehyde/permeabilized in 0.1% PBS-Tween used under the same conditions.
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