

## Product datasheet

# Anti-CD81 antibody [M38] ab79559

**KO** VALIDATED

★★★★☆ 2 Abreviews 73 References 6 Images

### Overview

<b>Product name</b>	Anti-CD81 antibody [M38]
<b>Description</b>	Mouse monoclonal [M38] to CD81
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Tissue, cells or virus corresponding to Human CD81. MOLT4 cell line
<b>Positive control</b>	Flow Cyt: HAP1 wild type cells. MOLT4 cells. Human peripheral blood cells; IHC-P: Human liver tissue; WB: Jurkat cell lysate.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: PBS
<b>Purity</b>	Protein A purified
<b>Purification notes</b>	ab79559 is purified from hybridoma culture supernatant by protein A affinity chromatography. Purity is > 95% (by SDS-PAGE).
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	M38
<b>Isotype</b>	IgG1

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab79559 in the following tested applications.

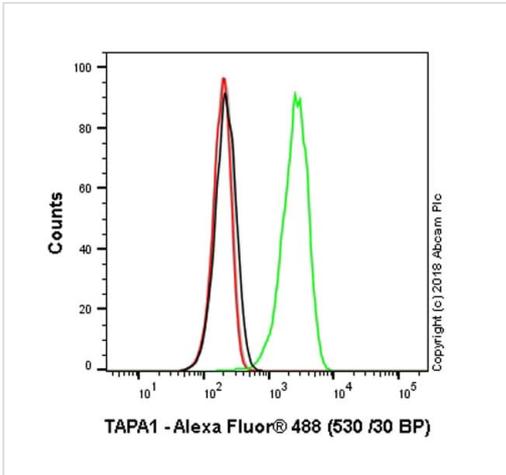
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (1)	Use a concentration of 2 µg/ml. Detects a band of approximately 25 kDa (predicted molecular weight: 25 kDa).
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
Flow Cyt		Use a concentration of 1 - 4 µg/ml. <a href="#">ab170190</a> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

## Target

<b>Function</b>	May play an important role in the regulation of lymphoma cell growth. Interacts with a 16-kDa Leu-13 protein to form a complex possibly involved in signal transduction. May acts a the viral receptor for HCV.
<b>Tissue specificity</b>	Hematolymphoid, neuroectodermal and mesenchymal tumor cell lines.
<b>Involvement in disease</b>	Defects in CD81 are the cause of immunodeficiency common variable type 6 (CVID6) [MIM:613496]; also called antibody deficiency due to CD81 defect. CVID6 is a primary immunodeficiency characterized by antibody deficiency, hypogammaglobulinemia, recurrent bacterial infections and an inability to mount an antibody response to antigen. The defect results from a failure of B-cell differentiation and impaired secretion of immunoglobulins; the numbers of circulating B cells is usually in the normal range, but can be low.
<b>Sequence similarities</b>	Belongs to the tetraspanin (TM4SF) family.
<b>Post-translational modifications</b>	Not glycosylated.
<b>Cellular localization</b>	Membrane.

## Images



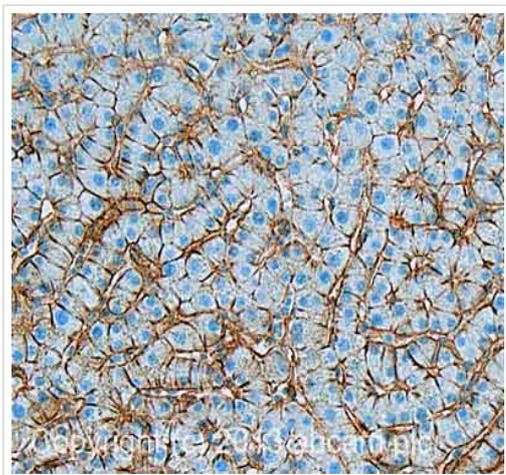
Flow Cytometry - Anti-CD81 antibody [M38]  
(ab79559)

Overlay histogram showing HAP1 wildtype (green line) and HAP1-CD81 knockout cells (red line) stained with ab79559. The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (ab79559, 1µg/ml) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) presorbed (ab150117) at 1/2000 dilution for 30 min at 22°C.

A mouse IgG1 isotype control antibody (ab170190) was used at the same concentration and conditions as the primary antibody (HAP1 wildtype - black line, HAP1-CD81 knockout - grey line). Unlabelled sample was also used as a control (this line is not shown for the purpose of simplicity).

Acquisition of >5,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter.

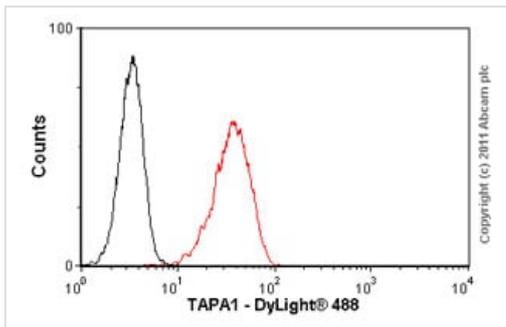
This antibody can also be used in HAP1 cells fixed with 80% methanol (5 min), permeabilized with 0.1% PBS-Triton X-100 for 15 min under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD81 antibody [M38]  
(ab79559)

IHC image of CD81 staining in Human normal liver formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab79559, 5 µg/mL, for 15 mins 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.

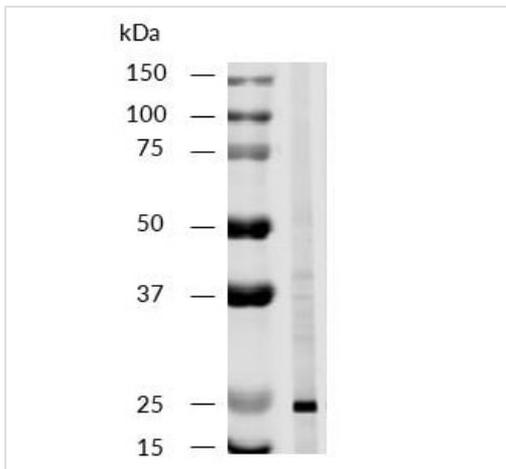
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry - Anti-CD81 antibody [M38] (ab79559)

Overlay histogram showing MOLT4 cells stained with ab79559 (red line). The cells were fixed with 4% paraformaldehyde and 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 (ab79559, 1 µg/1x10<sup>6</sup> 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 [C1GG1] (ab91353, 2 µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in MOLT4 cells fixed with methanol (5 min) used under the same conditions.

Please note that Abcam do not have data for use of this antibody on non-fixed cells. We welcome any customer feedback.



Western blot - Anti-CD81 antibody [M38] (ab79559)

Anti-CD81 antibody [M38] (ab79559) at 2 µg/ml + Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate

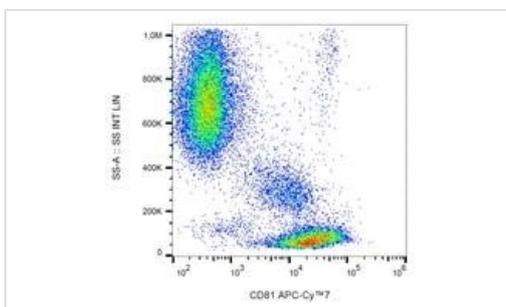
### Secondary

IRDye800-conjugated Anti-Mouse Secondary Antibody

Performed under non-reducing conditions.

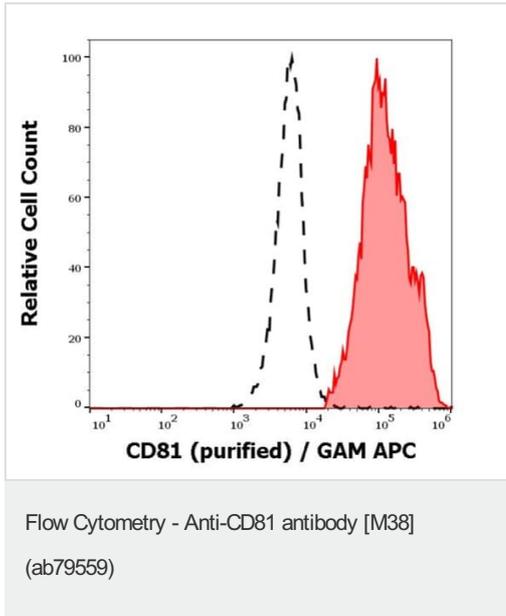
**Predicted band size:** 25 kDa

**Observed band size:** 25 kDa



Flow Cytometry - Anti-CD81 antibody [M38] (ab79559)

Flow cytometry analysis using human peripheral blood cells with ab79559 at 4 µg/ml.



Separation of human lymphocytes (red-filled) from neutrophil granulocytes (black-dashed) in flow cytometry analysis of human peripheral whole blood stained using ab79559 at 4 µg/ml.

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