

## Product datasheet

### Anti-CD18 antibody [MEM-148] ab8220

★★★★★ [1 Abreviews](#) [13 References](#) [2 Images](#)

#### Overview

<b>Product name</b>	Anti-CD18 antibody [MEM-148]
<b>Description</b>	Mouse monoclonal [MEM-148] to CD18
<b>Host species</b>	Mouse
<b>Specificity</b>	Recognizes the epitope exposed on free human CD18 chains unassociated with CD11 as well as on high-affinity state of LFA-1.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Does not react with:</b> Pig, Monkey
<b>Immunogen</b>	Tissue, cells or virus corresponding to Human CD18. Peripheral blood mononuclear cells
<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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	MEM-148
<b>Isotype</b>	IgG1

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab8220 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
Flow Cyt		Use 0.1µg for 10 <sup>6</sup> cells. The antibody is excellent marker of activated myeloid cells. <b>ab170190</b> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

## Target

### Function

Integrin alpha-L/beta-2 is a receptor for ICAM1, ICAM2, ICAM3 and ICAM4. Integrins alpha-M/beta-2 and alpha-X/beta-2 are receptors for the iC3b fragment of the third complement component and for fibrinogen. Integrin alpha-X/beta-2 recognizes the sequence G-P-R in fibrinogen alpha-chain. Integrin alpha-M/beta-2 recognizes P1 and P2 peptides of fibrinogen gamma chain. Integrin alpha-M/beta-2 is also a receptor for factor X. Integrin alpha-D/beta-2 is a receptor for ICAM3 and VCAM1.

### Involvement in disease

Defects in ITGB2 are the cause of leukocyte adhesion deficiency type 1 (LAD1) [MIM:116920]. LAD1 patients have recurrent bacterial infections and their leukocytes are deficient in a wide range of adhesion-dependent functions.

### Sequence similarities

Belongs to the integrin beta chain family.  
Contains 1 VWFA domain.

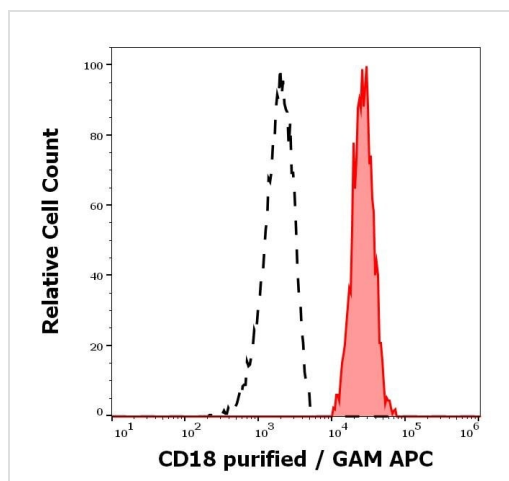
### Post-translational modifications

Both Ser-745 and Ser-756 become phosphorylated when T-cells are exposed to phorbol esters. Phosphorylation on Thr-758 (but not on Ser-756) allows interaction with 14-3-3 proteins.

### Cellular localization

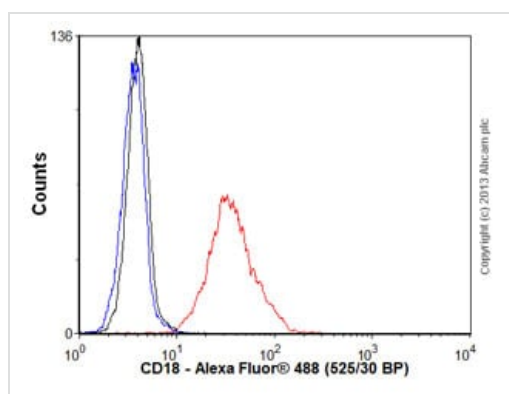
Membrane.

## Images



Flow Cytometry - Anti-CD18 antibody [MEM-148]  
(ab8220)

Flow cytometry analysis of human peripheral whole blood cells using ab8220 at 1.67 µg/ml showing separation of human monocytes (red-filled) from CD18 negative blood debris (black-dashed).



Flow Cytometry - Anti-CD18 antibody [MEM-148]  
(ab8220)

Human peripheral blood lymphocytes stained with ab8220 (red line). Human whole blood was processed using a modified protocol based on Chow *et al*, 2005 (PMID: 16080188). In brief, human whole blood was fixed in 4% formaldehyde (methanol-free) for 10 min at 22°C. Red blood cells were then lysed by the addition of Triton X-100 (final concentration - 0.1%) for 15 min at 37°C. For experimentation, cells were treated with 50% methanol (-20°C) for 15 min at 4°C. Cells were then incubated with the antibody (ab8220, 0.1µg/1x10<sup>6</sup> cells) for 30 min at 4°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (**ab150113**) at 1/2000 dilution for 30 min at 4°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 0.1µg/1x10<sup>6</sup> cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >30,000 total events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. Gating strategy - peripheral blood lymphocytes.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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