# Anti-CD68 antibody [KP1] ab955

- **Product name:** Anti-CD68 antibody [KP1]
- **Description:** Mouse monoclonal [KP1] to CD68
- **Host species:** Mouse
- **Tested applications:** Suitable for: ICC/IF, IHC-FoFr, IHC-P, IHC-Fr
- **Species reactivity:** Reacts with: Human
  - Predicted to work with: Mouse, Rat, Rabbit
- **Positive control:** IHC-P: Human tonsil tissue.
- **General notes:** We have received mixed customer feedback regarding suitability of ab955 with mouse and rat tissue and therefore no longer recommend it for mouse and rat. Please note it will also not be covered by our AbPromise guarantee for these species.
  Abcam recommended secondaries - Goat Anti-Mouse HRP (ab205719) and Goat Anti-Mouse Alexa Fluor® 488 (ab150113).
  See other anti-mouse secondary antibodies that can be used with this antibody.

## Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>Preservative: 0.099% Sodium azide</td>
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<tr>
<td></td>
<td>Constituents: 0.9% Proprietary component, Water</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Protein A/G purified</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>KP1</td>
</tr>
<tr>
<td><strong>Myeloma</strong></td>
<td>unknown</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG1</td>
</tr>
<tr>
<td><strong>Light chain type</strong></td>
<td>kappa</td>
</tr>
</tbody>
</table>

## Applications
Function
Could play a role in phagocytic activities of tissue macrophages, both in intracellular lysosomal metabolism and extracellular cell-cell and cell-pathogen interactions. Binds to tissue- and organ-specific lectins or selectins, allowing homing of macrophage subsets to particular sites. Rapid recirculation of CD68 from endosomes and lysosomes to the plasma membrane may allow macrophages to crawl over selectin-bearing substrates or other cells.

Tissue specificity
Highly expressed by blood monocytes and tissue macrophages. Also expressed in lymphocytes, fibroblasts and endothelial cells. Expressed in many tumor cell lines which could allow them to attach to selectins on vascular endothelium, facilitating their dissemination to secondary sites.

Sequence similarities
Belongs to the LAMP family.

Post-translational modifications
N- and O-glycosylated.

Cellular localization

Our Abpromise guarantee covers the use of ab955 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td>★★★★★</td>
<td>Use at an assay dependent concentration. PubMed: 18804859</td>
</tr>
<tr>
<td>IHC-FoFr</td>
<td>★★★★</td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>IHC-P</td>
<td>★★★★★</td>
<td>1/100 - 1/200. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. Recommended heat mediated antigen retrieval in pressure cooker for 2-5 minutes or steaming of tissue sections for 45-60 minutes followed by cooling for 10 minutes and washing in distilled water. In case of enzymatic epitope retrieval - digest with Pepsin enzyme for 30-60 seconds at RT.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td>★★★★★</td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

Target

Ab955 staining CD68 in human spleen tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections).

Tissue was fixed with formaldehyde and blocked with 10% serum for 10 minutes at 20°C; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/200) for 30 minutes at 20°C. An undiluted HRP-conjugated rat anti-mouse/rabbit polymer was used as the secondary antibody.
**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD68 antibody [KP1] (ab955)**

*Image courtesy of an anonymous Abreview.*

**ab955 staining CD68 in human liver tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).**

Tissue was fixed with paraformaldehyde. Samples were then blocked with 10% serum for 3 hours at 22°C followed by incubation with the primary antibody at a 1/100 dilution for 16 hours at 4°C. An Alexa Fluor® 568 conjugated goat anti-mouse polyclonal was used as secondary antibody at a 1/400 dilution.

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**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD68 antibody [KP1] (ab955)**

*This image is courtesy of an anonymous Abreview.*

**ab955 staining CD68 in human ulcerated oral (Mucosa/Bone) tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections).**

Tissue was fixed with paraformaldehyde, permeabilized with 0.1% Triton-X 100 in PBS and blocked with 2.5% serum for 90 minutes at 25°C; antigen retrieval was by heat mediation in citrate buffer (pH 6). Samples were incubated with primary antibody (1/500 in 1% serum in PBS +0.01% Triton-X 100) for 16 hours at 4°C. A commercial IHC kit and DAB was used to visualize the staining.

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**Ab955 staining CD68 in human lung cancer tissues by ICC/IF (Immunocytochemistry/immunofluorescence).**

Cells were fixed with formalin and blocked with 2% horse serum for 1 hour at room temperature. Samples were then incubated with primary antibody (1/100) for 1 hour at 21°C. An Alexa Fluor® 488-conjugated Donkey anti-mouse IgG polyclonal (1/500) was used as the secondary antibody. DAPI containing mounting medium was used for nuclear staining (blue) and anti-TREM-1 (1/500) used for TREM-1 staining (red).

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD68 antibody [KP1] (ab955)

Immunohistochemical analysis of tonsil labeling CD68 with ab955.

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