

**CD68 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1920a**

**Specification**

**CD68 Antibody - Product Information**

Application	<b>WB, IHC, FC, ICC, E</b>
Primary Accession	<a href="#">P34810</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>37.4kDa KDa</b>

**Description**

This gene encodes a 110-kD transmembrane glycoprotein that is highly expressed by human monocytes and tissue macrophages. It is a member of the lysosomal/endosomal-associated membrane glycoprotein (LAMP) family. The protein primarily localizes to lysosomes and endosomes with a smaller fraction circulating to the cell surface. It is a type I integral membrane protein with a heavily glycosylated extracellular domain and binds to tissue- and organ-specific lectins or selectins. The protein is also a member of the scavenger receptor family. Scavenger receptors typically function to clear cellular debris, promote phagocytosis, and mediate the recruitment and activation of macrophages. Alternative splicing results in multiple transcripts encoding different isoforms.

**Immunogen**

Purified recombinant fragment of human CD68 (AA: 42-155) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide.

**CD68 Antibody - Additional Information**

**Gene ID** 968

**Other Names**

Macrosialin, Gp110, CD68, CD68

**Dilution**

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

FC~~1/200 - 1/400

ICC~~N/A

E~~1/10000

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

CD68 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## CD68 Antibody - Protein Information

**Name** CD68

### 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.

### Cellular Location

[Isoform Short]: Cell membrane; Single-pass type I membrane protein

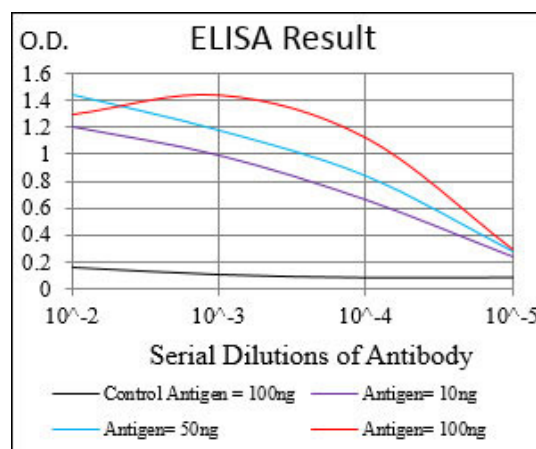
### Tissue Location

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.

## CD68 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)



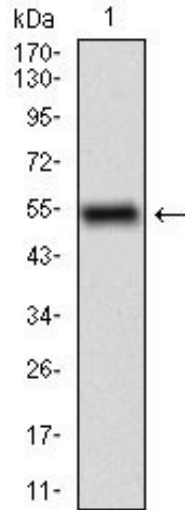


Figure 1: Western blot analysis using CD68 mAb against human CD68 (AA: 42-155) recombinant protein. (Expected MW is 37.4 kDa)

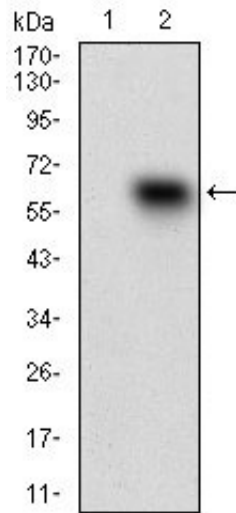


Figure 2: Western blot analysis using CD68 mAb against HEK293 (1) and CD68 (AA: 42-155)-hlgGfC transfected HEK293 (2) cell lysate.

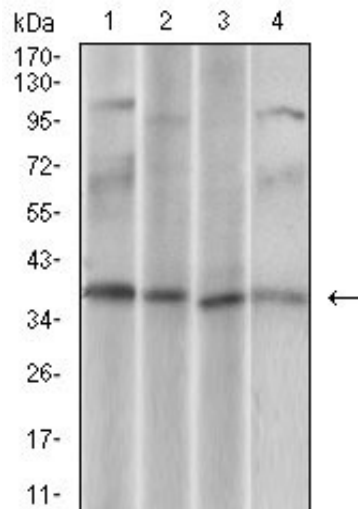


Figure 3: Western blot analysis using CD68 mouse mAb against U937 (1), HeLa (2), HepG2 (3), Jurkat (4) cell lysate.

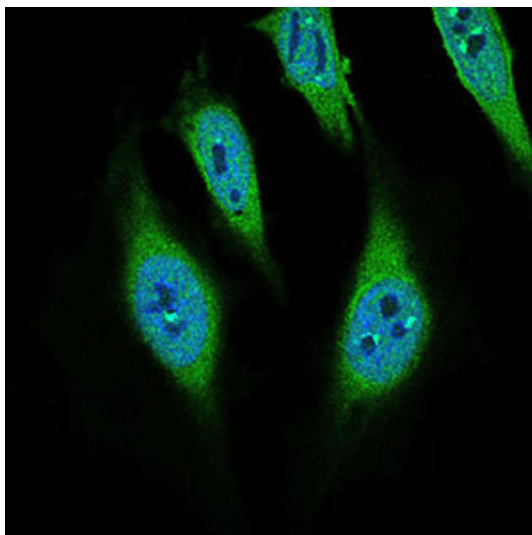


Figure 4: Immunofluorescence analysis of HeLa cells using CD68 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

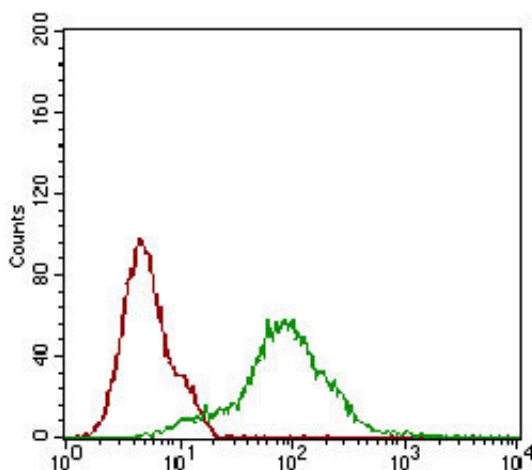


Figure 5: Flow cytometric analysis of HeLa cells using CD68 mouse mAb (green) and negative control (red).

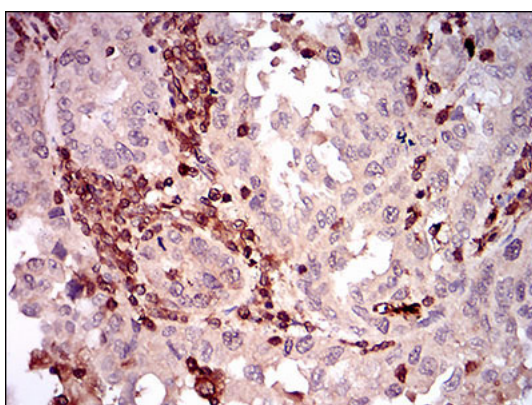


Figure 6: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues using CD68 mouse mAb with DAB staining.

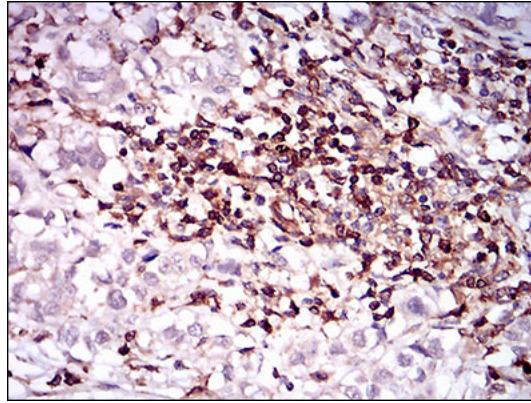


Figure 7: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using CD68 mouse mAb with DAB staining.

### **CD68 Antibody - Background**

The protein encoded by this gene belongs to the inhibitor of DNA binding family, members of which are transcriptional regulators that contain a helix-loop-helix (HLH) domain but not a basic domain. Members of the inhibitor of DNA binding family inhibit the functions of basic helix-loop-helix transcription factors in a dominant-negative manner by suppressing their heterodimerization partners through the HLH domains. This protein may play a role in negatively regulating cell differentiation. A pseudogene of this gene is located on chromosome 3. ; ; ;

### **CD68 Antibody - References**

1. Rom J Morphol Embryol. 2012;53(1):61-6.
2. Anticancer Res. 2009 Aug;29(8):3269-79.