

## Anti-CD68 Antibody

Catalog Number: A00602-1

### About CD68

CD68, cluster of differentiation, is a 110-kD transmembrane glycoprotein that is highly expressed by human monocytes and tissue macrophages. CD68 is a member of a family of hematopoietic mucin-like molecules that includes leukosialin/CD43 and stem cell antigen CD34. The CD68 gene is mapped to 17p13.1. Immunohistochemistry can be used to identify the presence of CD68, which is found in the cytoplasmic granules of a range of different blood cells. It is particularly useful as a marker for the various cells of the macrophage lineage, including monocytes, histiocytes, giant cells, Kupffer cells, and osteoclasts. This allows it to be used to distinguish diseases of otherwise similar appearance, such as the monocyte/macrophage and lymphoid forms of leukaemia (the latter being CD68 negative). Its presence in macrophages also makes it useful in diagnosing conditions related to proliferation or abnormality of these cells, such as malignant histiocytosis, histiocytic lymphoma, and Gaucher's disease.

### Overview

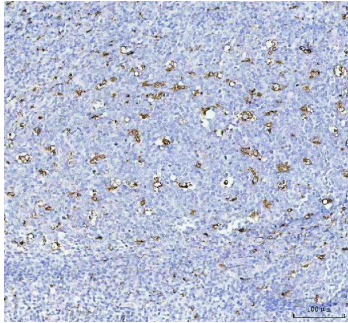
Product Name	Anti-CD68 Antibody
Reactive Species	Human
Description	Boster Bio Anti-CD68 Antibody catalog # A00602-1. Tested in ELISA, IF, IHC applications. This antibody reacts with Human.
Application	ELISA, IF, IHC
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P34810

### Technical Details

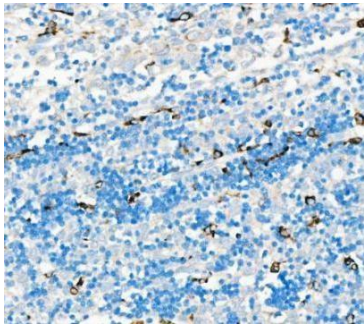
Immunogen	E.coli-derived human CD68 recombinant protein (Position: K154-L354).
Recommended Detection Systems	Boster recommends HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Immunofluorescence, 5 ug/ml, Human ELISA, 0.1-0.5 ug/ml, -

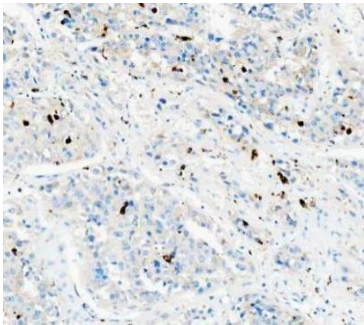
## Anti-CD68 Antibody (A00602-1) Images



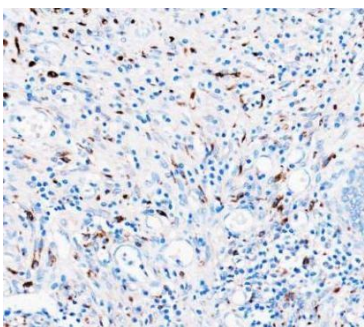
IHC analysis of CD68 using anti-CD68 antibody (A00602-1). CD68 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-CD68 Antibody (A00602-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



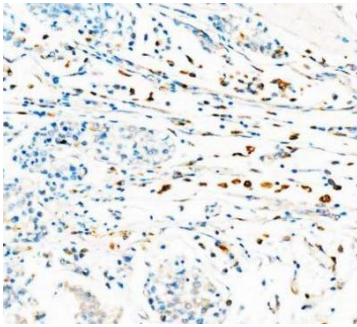
IHC analysis of CD68 using anti-CD68 antibody (A00602-1). CD68 was detected in a paraffin-embedded section of human spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2.5 ug/ml rabbit anti-CD68 Antibody (A00602-1) overnight at 4°C. HRP-AffiniPure Goat Anti-Rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



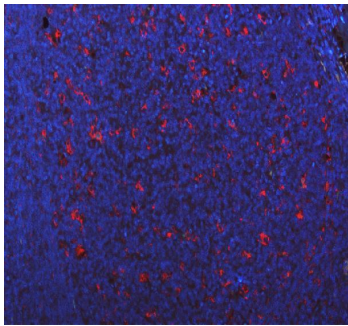
IHC analysis of CD68 using anti-CD68 antibody (A00602-1). CD68 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2.5 ug/ml rabbit anti-CD68 Antibody (A00602-1) overnight at 4°C. HRP-AffiniPure Goat Anti-Rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



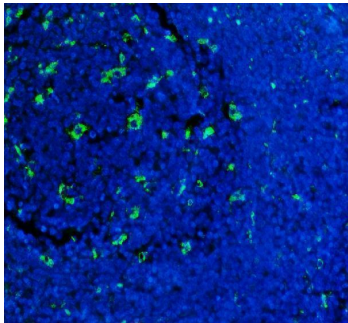
IHC analysis of CD68 using anti-CD68 antibody (A00602-1). CD68 was detected in a paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2.5 ug/ml rabbit anti-CD68 Antibody (A00602-1) overnight at 4°C. HRP-AffiniPure Goat Anti-Rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



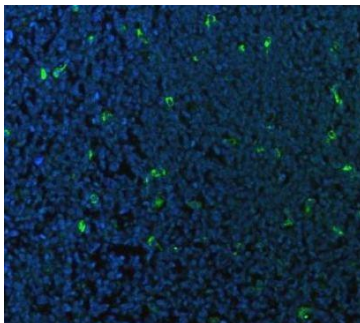
IHC analysis of CD68 using anti-CD68 antibody (A00602-1). CD68 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2.5 ug/ml rabbit anti-CD68 Antibody (A00602-1) overnight at 4°C. HRP-AffiniPure Goat Anti-Rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of CD68 using anti-CD68 antibody (A00602-1). CD68 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-CD68 Antibody (A00602-1) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

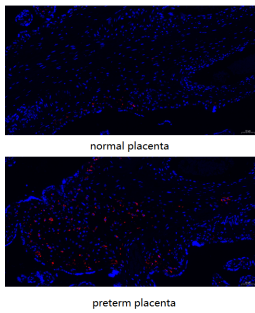


IF analysis of CD68 using anti-CD68 antibody (A00602-1). CD68 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-CD68 Antibody (A00602-1) overnight at 4°C. DyLight488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

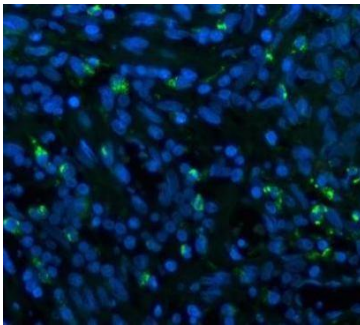


IF analysis of CD68 using anti-CD68 antibody (A00602-1). CD68 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2.5 ug/mL rabbit anti-CD68 Antibody (A00602-1) overnight at 4°C. DyLight 488 Conjugated AffiniPure Goat Anti-rabbit IgG (H+L) (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

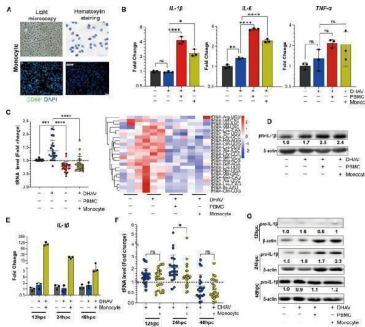
IF analysis of CD68 using anti-CD68 antibody (A00602-1). CD68 was detected in a paraffin-embedded section of



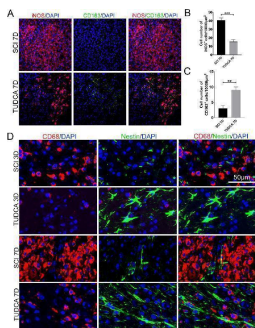
human normal placenta and preterm placental tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:500 rabbit anti-CD68 Antibody (A00602-1) overnight at 4°C. DyLight 594-conjugated Donkey Anti-Mouse IgG (H+L)(BA1148) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IF analysis of CD68 using anti-CD68 antibody (A00602-1). CD68 was detected in a paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2.5 ug/mL rabbit anti-CD68 Antibody (A00602-1) overnight at 4°C. DyLight 488 Conjugated AffiniPure Goat Anti-rabbit IgG (H+L) (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

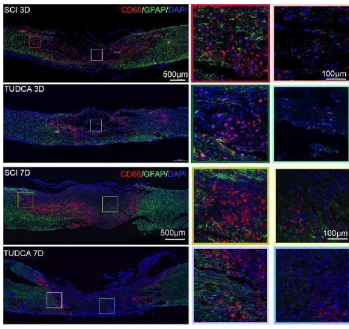


Coordination of the hepatocyte IL-1beta transcription-translation-mature tRNAome axis by monocytes . A Representative images of monocytes (light microscopy and hematoxylin staining). The identification of monocytes was confirmed by a rabbit anti-CD68 polyclonal antibody (green), and the results were compared with those of DEFs. DAPI was used for nuclear staining. B The impact of monocytes on the transcription of proinflammatory cytokines in infected hepatocytes. The hepatocytes were cocultured with a total of  $5.0 \times 10^6$  PMBCs per well or with the corresponding monocytes derived from the same number of PBMCs. A total of  $2.0 \times 10^7$  copies per well of DHAV were subsequently used. Samples were collected at 24 hpc. RT-qPCR was used to quantify the expression of IL-1beta, IL-6, and TNF-alpha compared with that in uninfected DPHs ( n = 3). Statistical significance was determined via unpaired t tests; \*, p

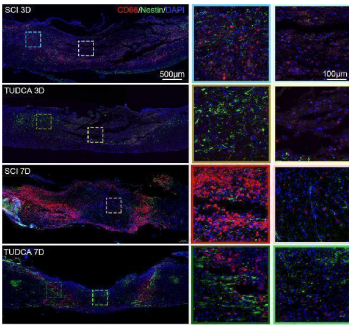


TUDCA promoted macrophages shift to M2-like phenotype and impacted endogenous NSCs morphology. (A) Immunofluorescent staining of M1-like (iNOS, red) and M2-like macrophages (CD163, green) at the margin of the lesion site at day 7 after SCI. (B, C) Quantification the number of iNOS + or CD163 cells. (D) Macrophages (CD68, red) and endogenous NSCs (Nestin, green) at the margin of the lesion site at day 7 after SCI. All experiments were performed in triplicated and data were presented means  $\pm$  SEM, n = 3 per group. \*\*P < 0.01, \*\*\*P < 0.001 .Index in PubMed under a CC BY license. PMID: 40276612

TUDCA regulated macrophages and reactive astrocytes distribution. Co-immunofluorescence images showed



macrophages (CD68, red) and reactive astrocytes (GFAP, green) at day 3 and day 7 after SCI. Index in PubMed under a CC BY license. PMID: 40276612



TUDCA regulated macrophages and endogenous NSCs distribution. Co-immunofluorescence images showed macrophages (CD68, red) and endogenous NSCs (Nestin, green) at day 3 and day 7 after SCI. Index in PubMed under a CC BY license. PMID: 40276612

## Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



### Anti-CD68 Antibody

For Research Use Only. Not for use in diagnostic procedures.