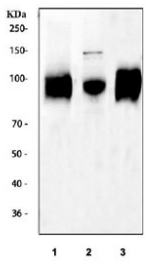
Cd68 Antibody / Mouse and Rat Macrophage Marker Antibody (R30592)

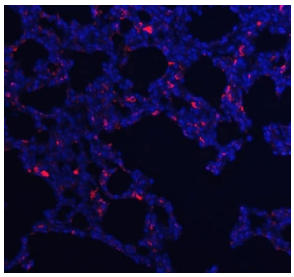
Catalog No.	Formulation	Size
R30592	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

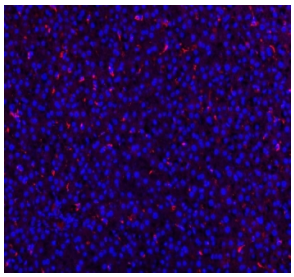
Availability	1-3 business days
Species Reactivity	Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P31996
RRID	AB_3752957
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence (FFPE): 5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This Cd68 Antibody / Mouse and Rat Macrophage Marker Antibody is available for research use only.



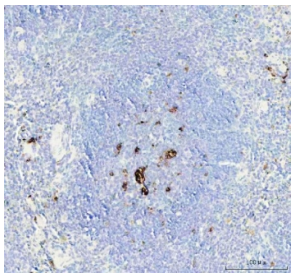
Cd68 Antibody Mouse Spleen and RAW264.7 WB. Western blot analysis of Cd68 Antibody using rat spleen (lane 1), mouse spleen (lane 2) and mouse RAW264.7 macrophage cell lysate (lane 3). Cd68 is a highly glycosylated protein that is routinely detected over a broad molecular weight range of approximately 37-110 kDa. Strong immunoreactive bands are observed in all samples, consistent with abundant Cd68 expression in macrophage-rich tissues and macrophage-derived cells. This Cd68 Antibody, a macrophage marker, is suitable for Western blot studies of monocyte/macrophage biology, innate immunity and inflammatory responses.



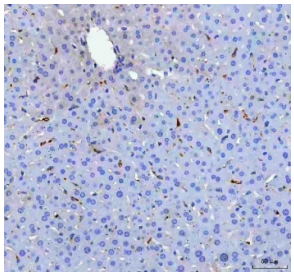
Cd68 Antibody Rat Lung IF. Immunofluorescent staining of FFPE rat lung tissue using Cd68 Antibody (red) with DAPI nuclear counterstain (blue). Heat-induced epitope retrieval was performed by steaming tissue sections in pH8 EDTA buffer for 20 minutes followed by cooling before staining. Distinct cytoplasmic fluorescence identifies Cd68-positive macrophages distributed throughout the lung parenchyma, consistent with the expected localization of resident pulmonary macrophages. This Cd68 Antibody, a macrophage marker, is well suited for immunofluorescence studies of innate immunity, inflammatory responses and tissue-resident phagocyte populations.



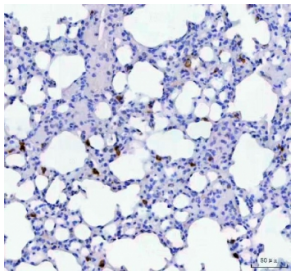
Cd68 Antibody Rat Liver IF. Immunofluorescent staining of FFPE rat liver tissue using Cd68 Antibody (red) with DAPI nuclear counterstain (blue). Heat-induced epitope retrieval was performed by steaming tissue sections in pH8 EDTA buffer for 20 minutes followed by cooling before staining. Specific cytoplasmic fluorescence identifies scattered Cd68-positive macrophages consistent with resident Kupffer cells within the liver. This Cd68 Antibody, a macrophage marker, is well suited for immunofluorescence studies of hepatic macrophages, innate immunity and liver inflammation.



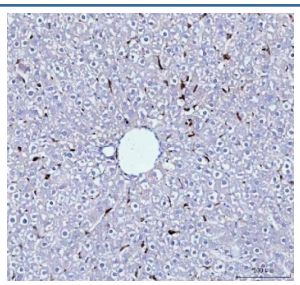
Cd68 Antibody Mouse Spleen IHC. Immunohistochemical staining of FFPE mouse spleen tissue using Cd68 Antibody. Heat-induced epitope retrieval was performed in pH8 EDTA buffer for 20 minutes followed by cooling before staining. Distinct cytoplasmic staining identifies Cd68-positive macrophages within the splenic tissue, consistent with the expected distribution of resident macrophages in this immune organ. This Cd68 Antibody, a macrophage marker, is well suited for immunohistochemical studies of innate immunity, mononuclear phagocytes and inflammatory responses.



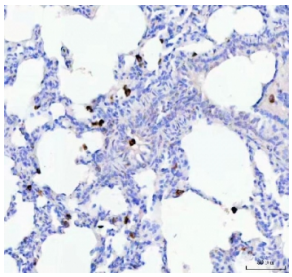
Cd68 Antibody Mouse Liver IHC. Immunohistochemical staining of FFPE mouse liver tissue using Cd68 Antibody. Heat-induced epitope retrieval was performed in pH8 EDTA buffer for 20 minutes followed by cooling before staining. Distinct cytoplasmic staining identifies scattered Cd68-positive Kupffer cells throughout the liver, consistent with the expected distribution of resident hepatic macrophages. This Cd68 Antibody, a macrophage marker, is well suited for immunohistochemical studies of liver macrophages, innate immunity and hepatic inflammatory responses.



Cd68 Antibody Mouse Lung IHC. Immunohistochemical staining of FFPE mouse lung tissue using Cd68 Antibody. Heat-induced epitope retrieval was performed in pH8 EDTA buffer for 20 minutes followed by cooling before staining. Distinct cytoplasmic staining identifies Cd68-positive alveolar and interstitial macrophages throughout the lung parenchyma, consistent with the expected distribution of resident pulmonary macrophages. This Cd68 Antibody, a macrophage marker, is well suited for immunohistochemical studies of innate immunity, pulmonary inflammation and tissue-resident phagocyte populations.



Cd68 Antibody Rat Liver IHC. Immunohistochemical staining of FFPE rat liver tissue using Cd68 Antibody. Heat-induced epitope retrieval was performed in pH8 EDTA buffer for 20 minutes followed by cooling before staining. Distinct cytoplasmic staining identifies scattered Cd68-positive Kupffer cells throughout the liver, consistent with the expected distribution of resident hepatic macrophages. This Cd68 Antibody, a macrophage marker, is well suited for immunohistochemical studies of liver macrophages, innate immunity and hepatic inflammatory responses.



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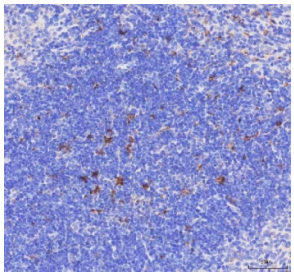
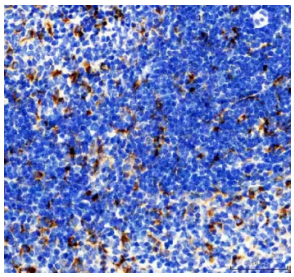
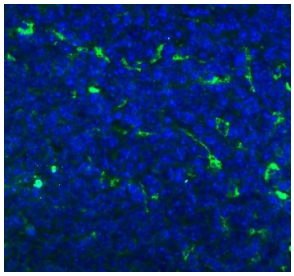


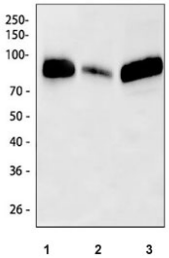
Cd68 Antibody Mouse Spleen White Pulp IHC. Immunohistochemical staining of FFPE mouse spleen tissue using Cd68 Antibody. Heat-induced epitope retrieval was performed in pH8 EDTA buffer for 20 minutes followed by cooling before staining. Distinct cytoplasmic staining identifies Cd68-positive macrophages within the splenic white pulp, consistent with the expected distribution of resident macrophages in lymphoid tissue. This Cd68 Antibody, a macrophage marker, is well suited for immunohistochemical studies of innate immunity, mononuclear phagocytes and inflammatory responses.



Cd68 Antibody Rat Spleen IHC. Immunohistochemical staining of FFPE rat spleen tissue using Cd68 Antibody. Heat-induced epitope retrieval was performed in pH8 EDTA buffer for 20 minutes followed by cooling before staining. Distinct cytoplasmic staining identifies numerous Cd68-positive macrophages throughout the splenic tissue, consistent with the expected distribution of resident macrophages in this immune organ. This Cd68 Antibody, a macrophage marker, is well suited for immunohistochemical studies of innate immunity, mononuclear phagocytes and inflammatory responses.



Cd68 Antibody Mouse Spleen IF. Immunofluorescent staining of FFPE mouse spleen tissue using Cd68 Antibody (green) with DAPI nuclear counterstain (blue). Heat-induced epitope retrieval was performed by steaming tissue sections in pH8 EDTA buffer for 20 minutes followed by cooling before staining. Specific cytoplasmic fluorescence identifies Cd68-positive macrophages distributed throughout the splenic tissue, consistent with the expected localization of resident macrophages within this lymphoid organ. This Cd68 Antibody, a macrophage marker, is well suited for immunofluorescence studies of innate immunity, mononuclear phagocytes and inflammatory responses.



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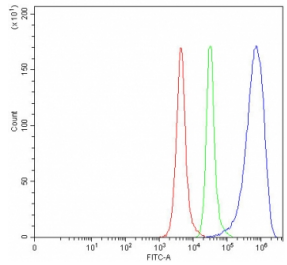

Description

Cd68 Antibody / Mouse and Rat Macrophage Marker Antibody recognizes Cd68, a lysosome-associated glycoprotein that is widely used as a marker of macrophages and other cells of the mononuclear phagocyte system. Cd68 is highly expressed in tissue-resident macrophages and plays important roles in lysosomal function, endocytosis and phagocytosis. Because of its abundant expression in macrophages across multiple organs, Cd68 is routinely used to identify and characterize macrophage populations during normal physiology, inflammation and disease. NSJ Bioreagents provides Cd68 antibodies validated for studies of mouse and rat tissues to support investigations of innate immunity and inflammatory biology.

Cd68 is prominently expressed by macrophages residing in spleen, liver, lung, lymph node and numerous other tissues. In the liver, Cd68 labels Kupffer cells, while in the lung it identifies alveolar and interstitial macrophages responsible for pathogen clearance and tissue homeostasis. Splenic macrophages expressing Cd68 contribute to immune surveillance, antigen processing and removal of senescent blood cells. The broad distribution of Cd68-positive macrophages throughout mouse and rat tissues makes this marker valuable for studying tissue-specific immune responses and macrophage biology across experimental disease models.

Altered numbers and activation states of Cd68-positive macrophages have been reported in infectious disease, autoimmune disorders, fibrosis, neuroinflammation, cardiovascular disease and cancer. Quantification of Cd68 expression is frequently used to assess macrophage infiltration, inflammatory severity and tissue remodeling in preclinical animal studies. Extensive validation in mouse and rat spleen, liver, lung and macrophage cell lines provides confidence for researchers investigating macrophage localization and function in commonly used rodent models.

An Cd68 Antibody is a valuable reagent for detecting macrophages by Western blotting, immunohistochemistry, immunofluorescence, flow cytometry and related immunoassays. A Mouse and Rat Macrophage Marker Antibody supports investigations of tissue-resident macrophages, innate immunity, inflammatory responses and preclinical rodent disease models.

For an overview of CD68 biology and to view Protein Microarray Validated specificity data generated with our LAMP4/1830 clone, visit our CD68 Antibody / Macrophage Marker Antibody page.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Cd68 Antibody / Mouse and Rat Macrophage Marker Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Amino acids 312-326 (AFCITRRRQSTYQPL) from the mouse protein were used as the immunogen for this Cd68 antibody.

Storage

After reconstitution, the Cd68 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Cd68 antibody, Mouse and Rat Macrophage Marker antibody, Macrosialin antibody, Lysosomal Glycoprotein antibody

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