Alexa Fluor® 488 anti-CD68 Antibody

Catalog# / Size	916107 / 25 µg 916108 / 100 µg
Clone	KP1
Regulatory Status	RUO
Other Names	Macrosialin, CD68 antigen, macrophage antigen CD68, scavenger receptor class D, member 1
Isotype	Mouse IgG1, κ
Description	Mouse CD68, also known as macrosialin, is an 85-115 kD member of the lysosomal-associated membrane protein (LAMP) family. It is a heavily glycosylated and predominantly intracellular protein, mainly in late endosomes. Macrosialin is the murine homolog to the human macrophage glycoprotein CD68. It is expressed on tissue macrophages, Langerhans cells and at low levels on dendritic cells. High levels of CD68 expression are detected in activated microglia. LAMP proteins may have functions related to cell-cell interaction or cell-ligand interaction. The biological function of CD68 is not completely understood.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	This antibody was generated using a Lysosomal fraction of human alveolar macrophages.
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions.
Concentration	0.5 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze**.
Application	IHC-P - Quality tested ICC - Verified
Recommended Usage	Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration range of 5.0 - 10.0 µg/mL is suggested. For immunocytochemistry, a concentration range of 1.25 - 5.0 µg/mL is recommended. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Blue Laser (488 nm)
Application Notes	For use in immunocytochemistry (ICC), it is recommended to fix/permeabilize with either of the following: - Fixation buffer (Cat. No. 420801) with 100% ice-cold methanol - 100% ice-cold methanol only Fixation/permeabilization with Fixation buffer (Cat. No. 420801) followed by 0.5 % Triton X-100 is not recommended due to non-specific staining.
Application References **(PubMed link indicates BioLegend citation)**	1. Holness CL, *et al.* 1993. *Blood* 81(6):1607. 2. Horny HP, *et al.* 1990. *J. Clin. Path.* 43:719. 3. Pulford KAF, *et al.* 1989. *J. Clin. Path.* 42:414.

RRID	AB_3699100 (BioLegend Cat. No. 916107) AB_3699100 (BioLegend Cat. No. 916108)

Antigen Details

Structure	CD68 is a 354 amino acid protein with a predicted molecular weight of 37.4 kD
Distribution	Microglia, monocytes, macrophages, dendritic cells, granulocytes, subset of hematopoietic progenitors, γ/δ T cells, NK cells, LAK cells, subset of B cells, fibroblasts, and endothelial cells.
Cell Type	B cells, Dendritic cells, Endothelial cells, Fibroblasts, Granulocytes, Hematopoietic stem and progenitors, Macrophages, Microglia, Monocytes
Biology Area	Cell Biology, Immunology, Neuroscience, Neuroscience Cell Markers, Signal Transduction
Molecular Family	CD Molecules
Antigen References	1. Holness CL, *et al*. 1993. *Blood.* 81(6):1607. 2. Horny HP, *et al.* 1990. *J Clin Path*. 43:719. 3. Pulford KAF, *et al*. 1989. *J Clin Path*. 42:414.
Gene ID	968

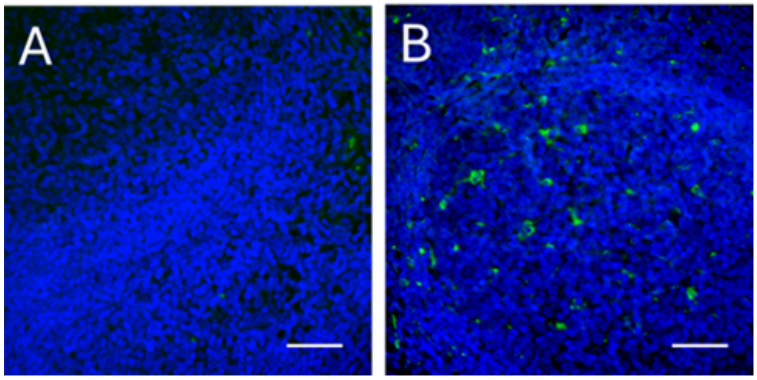
Related Protocols

- Immunocytochemistry Staining Protocol
- Immunohistochemistry Protocol for Paraffin-Embedded Sections

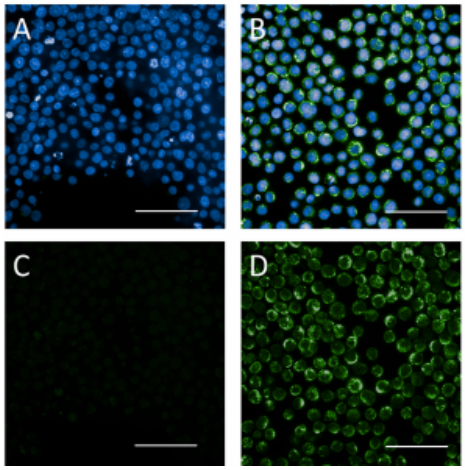
Other Formats

Purified anti-CD68, Alexa Fluor® 647 anti-CD68, Alexa Fluor® 488 anti-CD68

Product Data



IHC staining with Alexa Fluor® 488 anti-CD68 (clone KP1) on formalin-fixed paraffin-embedded human tonsil tissue. Following antigen retrieval using 1X Tris-Buffered Saline with Tween-20 (Cat. No. 925501), the tissue was incubated without (panel A) and with (panel B) Alexa Fluor® 488 anti-CD68 (clone KP1). Nuclei were counterstained with DAPI (Cat. No. 422801). Images were captured with a 40X objective and merged. Scale bar: 50 µm



Jurkat (negative cell line, panels A and C) and THP-1 cells (positive cell line, panels B and D) were fixed and permeabilized with 100% ice-cold methanol for 10 minutes and blocked with 5% FBS for 1 hour at room temperature. Cells were then stained with Alexa Fluor® 488 anti-CD68 (clone KP1). Nuclei were counterstained with DAPI (Cat. No. 422801) and merged (panels A and B). The images were captured on a Revvity Operetta CLS™ High Content Analysis System with a 63X objective and merged. Scale bar: 50 µm

8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587