Antibodies

Anti-Human CD68 Antibody, Clone Y1/82A

Mouse monoclonal IgG2b antibody against human CD68, unconjugated

Catalog #60105	100 µg	0.5 mg/mL
#60105.1	25 µg	0.5 mg/mL

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Product Description

The Y1/82A antibody reacts with human CD68, an ~110 kDa type 1 transmembrane glycoprotein and member of the sialomucin, LAMP and scavenger receptor families. The heavily glycosylated extracellular domain of CD68, which contains a praline-rich spacer region separating mucin and LAMP domains, binds low-density lipoprotein and certain lectins and selectins, though the function of CD68 remains unclear. CD68 is highly expressed in lysosomes, endosomes and cytoplasmic granules, and more weakly on the surface of macrophages, monocytes, neutrophils, basophils, dendritic cells and NK cells. It has also been detected in the cytoplasm of γ/δ T cells, LAK cells, fibroblasts, endothelial cells and subsets of B cells and hematopoietic progenitors, as well as in various non-hematopoietic tissues such as liver and kidney. CD68 is particularly useful as a marker for cells of the macrophage lineage and is employed, for example, for distinguishing the monocyte/macrophage and lymphoid forms of leukemia. The Y1/82A antibody recognizes an epitope distinct from those of antibody clones Y2/131, EBM11, Ki-M6 and KP1. Y1/82A is reportedly more specific for monocytes and macrophages than KP1.

Target Antigen Name:	CD68
Alternative Names:	GP110, LAMP4, Lysosomal-associated membrane protein, Macrosialin, SCARD1, Scavenger receptor class D member 1
Gene ID:	968
Species Reactivity:	Human
Host Species:	Mouse (BALB/c)
Clonality:	Monoclonal
Clone:	Y1/82A
Isotype:	IgG2b, kappa
Immunogen:	Phytohaemagglutinin-activated peripheral blood mononuclear cells
Conjugate:	Unconjugated

Applications

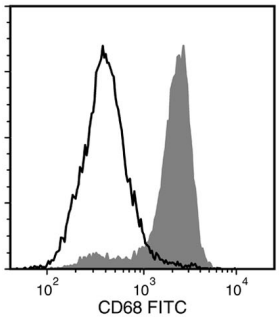
Verified:	FC
Reported:	FC, ICC, IF, IHC, IP, WB
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human CD14 Positive Selection Kit (Catalog #18058), and for analyzing human macrophages derived from cultured monocytes.

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 0.125 µg per 1 x 10^6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs; gated on monocytes). Cells were fixed and permeabilized, then labeled with Anti-Human CD68 Antibody, Clone Y1/82A, followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC (Catalog #60138FI) (filled histogram), or Mouse IgG2b, kappa Isotype Control Antibody, Clone MPC-11 (Catalog #60072), followed by Goat Anti-Mouse IgG (H+L) Antibody, Polyclonal, FITC (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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4. Hameed A et al. (1994) Immunohistochemical expression of CD68 antigen in human peripheral blood T cells. Hum Pathol 25(9): 872–6. (FC, IHC)
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7. Pulford KA et al. (1990) Distribution of the CD68 macrophage/myeloid associated antigen. Int Immunol 2(10): 973–80. (ICC, IHC, WB)
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