

Anti-Human CD38 Antibody, Clone AT-1, FITC

Antibodies

Mouse monoclonal IgG1 antibody
against human, rhesus, cynomolgus
CD38, FITC-conjugated



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Catalog #60131FI

100 Tests 20 µL/test

Product Description

The AT-1 antibody reacts with CD38, an ~45 kDa type II integral membrane glycoprotein that is part of the ADP-ribosyl cyclase family. CD38 is widely expressed at variable levels on hematopoietic cells including early B and T cell lineages, activated B and T cells, NK cells, monocytes, and dendritic cells. It is strongly expressed in plasma cells. CD38 is also expressed in some non-hematopoietic tissues such as brain, kidney, muscle, and pancreas. CD38 is an ectoenzyme that acts as both an ADP-ribosyl cyclase and ADP-ribose (ADPR) hydrolase for the synthesis and hydrolysis of cyclic ADPR (cADPR) and NAADP. cADPR acts as a second messenger for intracellular calcium mobilization to facilitate glucose-induced insulin secretion. CD38 functions as a signaling receptor and thus associates with various molecules, one of which is CD31, to mediate unique cell-type specific signaling. On hematopoietic cells, CD38 mediates adhesion and the activation, proliferation, and differentiation of mature B and T cells, and the apoptosis of myeloid and lymphoid progenitor cells. CD38 monoclonal antibodies have been used to study B and T cell differentiation and activation, to inhibit B lymphopoiesis, and to protect B cells from apoptosis. It has been shown that the AT-1 antibody mutually competes for binding with OKT10 and SUN-4B7, and all three clones only bind the native (not reduced) form of CD38.

Target Antigen Name:	CD38
Alternative Names:	ADP-ribosyl cyclase, cADPR, Cyclic ADP-ribose hydrolase, T10
Gene ID:	952
Species Reactivity:	Human, Rhesus, Cynomolgus, Pigtailed macaque
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	AT-1
Isotype:	IgG1, kappa
Immunogen:	Human T cell line CCRF-CEM
Conjugate:	FITC (Fluorescein isothiocyanate)

Applications

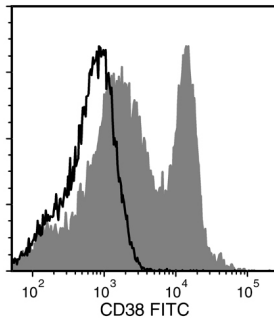
Verified:	FC
Reported:	FC

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 saline containing 0.1% bovine serum albumin and < 0.1% 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. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com .
Directions for Use:	For flow cytometry, the suggested use of this antibody is 20 µL per 1 x 10 ⁶ cells in 100 µL. 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) labeled with Anti-Human CD38 Antibody, Clone AT-1, FITC (filled histogram), or Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21, FITC (Catalog #60070FI) (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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