

## Anti-Human CD38 Antibody, Clone HIT2, Biotin



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## Antibodies

Mouse monoclonal IgG1 antibody  
against human, chimpanzee, horse  
CD38, biotin-conjugated

Catalog #60014BT  
#60014BT.1

100 µg 0.5 mg/mL  
25 µg 0.5 mg/mL

## Product Description

The HIT2 antibody reacts with CD38, an ~45 kDa type II transmembrane glycoprotein expressed by many cell types, especially leukocytes. CD38 is an ectoenzyme (ADP-ribosyl hydrolase) with both cyclase and hydrolase activities, whereby it mediates lymphocyte activation, adhesion, and metabolism. CD31 is a known ligand for the receptor. In humans, CD38 is expressed by the majority of hematopoietic cells at levels which vary according to the differentiation and activation status of the cells. It is highly expressed on activated T and B cells and plasma cells, and is also found at high levels in several tissues, including brain, kidney, liver, ovary, pancreas, placenta, testis, and some types of cancerous tissue.

Target Antigen Name:	CD38
Alternative Names:	ADP-ribosyl cyclase, T10
Gene ID:	952
Species Reactivity:	Human, Chimpanzee, Horse
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	HIT2
Isotype:	IgG1, kappa
Immunogen:	Human fetal thymocytes
Conjugate:	Biotin

## Applications

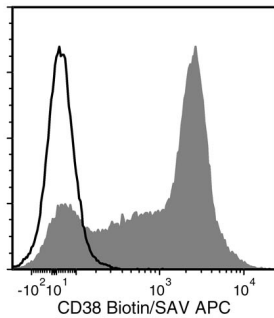
Verified:	FC
Reported:	FC, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human CD138 Positive Selection Kit II (Catalog #17877) and EasySep™ Human Whole Blood and Bone Marrow CD138 Positive Selection Kit II (Catalog #17887).

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 and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact <a href="mailto:techsupport@stemcell.com">techsupport@stemcell.com</a> .
Directions for Use:	For flow cytometry, the suggested use of this antibody is $\leq 0.5 \mu\text{g}$ per $1 \times 10^6$ 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 HIT2, Biotin followed by streptavidin (SAV) APC (filled histogram), or a biotinylated mouse IgG1, kappa isotype control antibody followed by SAV APC (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](http://www.stemcell.com/antibodies) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## References

- Charaf L et al. (2017) Effect of tyrosine kinase inhibitors on stemness in normal and chronic myeloid leukemia cells. *Leukemia* 31(1): 65–74. (FACS)
- Buggert M et al. (2014) Multiparametric bioinformatics distinguish the CD4/CD8 ratio as a suitable laboratory predictor of combined T cell pathogenesis in HIV infection. *J Immunol* 192(5): 2099–108. (FC)
- Lehner M et al. (2008) Plasticity of dendritic cell function in response to prostaglandin E2 (PGE2) and interferon-gamma (IFN-gamma). *J Leukoc Biol* 83(4): 883–93. (FC)
- Roura-Mir C et al. (2005) CD1a and CD1c activate intrathyroidal T cells during Graves' disease and Hashimoto's thyroiditis. *J Immunol* 174(6): 3773–80. (IF, IHC)
- Ferrero E et al. (2004) Characterization and phylogenetic epitope mapping of CD38 ADPR cyclase in the cynomolgus macaque. *BMC Immunol* 5: 21. (FC, ICC, IF, WB)
- Bende RJ et al. (2003) Primary follicular lymphoma of the small intestine: alpha4beta7 expression and immunoglobulin configuration suggest an origin from local antigen-experienced B cells. *Am J Pathol* 162(1): 105–13. (IHC)
- Lin G et al. (2002) Cross-reactivity of CD antibodies in eight animal species. In: Mason D et al. (Eds.). *Leucocyte Typing VII* (pp. 519–24). New York: Oxford University Press.
- Yoshino N et al. (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of cynomolgus monkeys (*Macaca fascicularis*) by using anti-human cross-reactive antibodies. *Exp Anim* 49(2): 97–110. (FC)
- Deaglio S et al. (1998) Human CD38 (ADP-ribosyl cyclase) is a counter-receptor of CD31, an Ig superfamily member. *J Immunol* 160(1): 395–402. (FA, FC)
- Horenstein AL et al. (1998) CD38 binding to human myeloid cells is mediated by mouse and human CD31. *Biochem J* 330 (3): 1129–35. (IP, WB)
- van der Voort R et al. (1997) Paracrine regulation of germinal center B cell adhesion through the c-met-hepatocyte growth factor/scatter factor pathway. *J Exp Med* 185(12): 2121–31. (FC, IHC)
- Joshua D et al. (1996) The labelling index of primitive plasma cells determines the clinical behaviour of patients with myelomatosis. *Br J Haematol* 94(1): 76–81. (FC)
- Mizuguchi M et al. (1995) Neuronal localization of CD38 antigen in the human brain. *Brain Res* 697(1-2): 235–40. (IHC, WB)
- Alessio M et al. (1990) CD38 molecule: structural and biochemical analysis on human T lymphocytes, thymocytes, and plasma cells. *J Immunol* 145(3): 878–84. (IP)
- McMichael AJ et al. (Eds.). (1987) *Leucocyte Typing III: White Cell Differentiation Antigens* (pp. 417–9). New York: Oxford University Press.

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