

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

FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

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

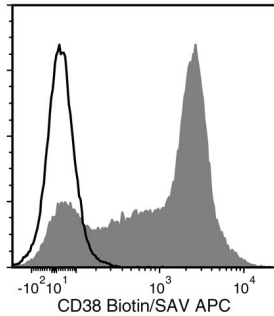
Verified:	FC
Reported:	FC, IHC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human CD138 Positive Selection Kit (Catalog #18357) and EasySep™ Human Whole Blood CD138 Positive Selection Kit (Catalog #18387).

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; 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 techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is ≤ 0.5 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) 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 or contact us at techsupport@stemcell.com.

References

1. McMichael AJ, et al. Eds. Leucocyte Typing III: White Cell Differentiation Antigens. Oxford University Press, New York, pp. 417-19, 1987
2. Alessio M, et al. CD38 molecule: structural and biochemical analysis on human T lymphocytes, thymocytes, and plasma cells. *J Immunol* 145(3): 878-84, 1990 (IP)
3. Mizuguchi M, et al. Neuronal localization of CD38 antigen in the human brain. *Brain Res* 697(1-2): 235-40, 1995 (IHC, WB)
4. Joshua D, et al. The labelling index of primitive plasma cells determines the clinical behaviour of patients with myelomatosis. *Br J Haematol* 94(1): 76-81, 1996 (FC)
5. van der Voort R, et al. 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, 1997 (FC, IHC)
6. Deaglio S, et al. Human CD38 (ADP-ribosyl cyclase) is a counter-receptor of CD31, an Ig superfamily member. *J Immunol* 160(1): 395-402, 1998 (FA, FC)
7. Horenstein AL, et al. CD38 binding to human myeloid cells is mediated by mouse and human CD31. *Biochem J* 330(3): 1129-35, 1998 (IP, WB)
8. Yoshino N, et al. 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, 2000 (FC)
9. Lin G, et al. Cross-reactivity of CD antibodies in eight animal species. In: Mason D, et al., Eds. Leucocyte Typing VII. Oxford University Press, Oxford, pp. 519-24, 2002
10. Bende RJ, et al. 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, 2003 (IHC)
11. Ferrero E, et al. Characterization and phylogenetic epitope mapping of CD38 ADPR cyclase in the cynomolgus macaque. *BMC Immunol* 5: 21, 2004 (FC, ICC, IF, WB)
12. Roura-Mir C, et al. CD1a and CD1c activate intrathyroidal T cells during Graves' disease and Hashimoto's thyroiditis. *J Immunol* 174(6): 3773-80, 2005 (IF, IHC)
13. Lehner M, et al. Plasticity of dendritic cell function in response to prostaglandin E2 (PGE2) and interferon-gamma (IFN-gamma). *J Leukoc Biol* 83(4): 883-93, 2008 (FC)
14. Buggert M, et al. 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, 2014 (FC)

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