Anti-Human CD38 Antibody, Clone HIT2

Antibodies

Mouse monoclonal IgG1 antibody against human, chimpanzee, horse

CD38, unconjugated

Catalog #60014 100 µg 0.5 mg/mL



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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: Unconjugated

Applications

Verified: FC

Reported: CyTOF®, FC, IHC, WB

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.

Stability and Storage: Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please request a lot-

specific Certificate of Analysis from techsupport@stemcell.com.

Directions for Use: For flow cytometry the suggested use of this antibody is ≤ 2.0 µg per 1 x 10e6 cells in 100 µL volume. It is

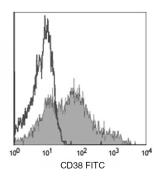
recommended that the antibody be titrated for optimal performance for each application.

Antibodies

Anti-Human CD38 Antibody, Clone HIT2



Data



Flow cytometry analysis of human peripheral blood lymphocytes labeled with Anti-Human CD38 Antibody, Clone HIT2, followed by anti-mouse IgG, FITC (filled histogram) or a mouse IgG1, kappa isotype control antibody followed by anti-mouse IgG, FITC (open histogram).

Related Products

PRODUCT NAME	CATALOG #	SIZE
Anti-Human CD38 Antibody, Clone HIT2	60014	100 µg
Anti-Human CD38 Antibody, Clone HIT2, PE	60014PE	100 tests
Anti-Human CD38 Antibody, Clone HIT2, PE	60014PE.1	25 tests
Anti-Human CD38 Antibody, Clone HIT2, Alexa Fluor® 488	60014AD	100 tests
Anti-Human CD38 Antibody, Clone HIT2, Alexa Fluor® 488	60014AD.1	25 tests

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
- 3. Mizuguchi M, et al. Neuronal localization of CD38 antigen in the human brain. Brain Res 697(1-2): 235-40, 1995
- 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,
- 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 (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
- 7. Horenstein AL, et al. CD38 binding to human myeloid cells is mediated by mouse and human CD31. Biochem J 330(Pt 3): 1129-35, 1998
- 8. Jeannin P, et al. Human effector memory T cells express CD86: a functional role in naive T cell priming. J Immunol 162(4): 2044-48, 1999
- 9. 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)
- 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
- 11. Lin G, et al. Cross-reactivity of CD antibodies in eight animal species. In: Mason D, et al., Eds. Leukocyte Typing VII. Oxford University Press, Oxford, pp. 519-24, 2002
- 12. 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

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