

Technical Data Sheet

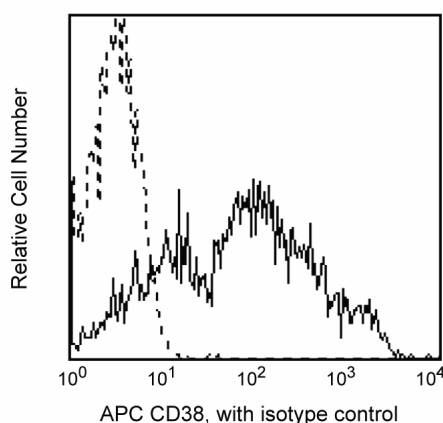
APC Mouse Anti-Human CD38

Product Information

Material Number:	560980
Size:	25 tests
Vol. per Test:	20 µl
Clone:	HIT2
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	III 155
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The HIT2 monoclonal antibody specifically binds to CD38. CD38 is a 45 kDa type II single-chain transmembrane glycoprotein present on thymocytes, activated T cells and terminally differentiated B cells (plasma cells). Other reactive cells include monocytes, macrophages, dendritic cells and some epithelial cells. The CD38 antigen acts as an ectoenzyme that catalyzes the synthesis and hydrolysis of a Ca^{++} mobilizing agent, cyclic ADP-ribose. This intracellular calcium plays an important role in cell signalling pathways. Reports describe CD38 as participating in adhesion with CD31, immunoregulatory functions involving signal transduction leading to cell growth, apoptosis, and differentiation.



Profile of peripheral blood lymphocytes analyzed by flow cytometry.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
555751	APC Mouse IgG1, κ Isotype Control	100 tests	MOPC-21

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

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3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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- Jackson DG, Bell JL. Isolation of a cDNA encoding the human CD38 (T10) molecule, a cell surface glycoprotein with an unusual discontinuous pattern of expression during lymphocyte differentiation. *J Immunol.* 1990; 144(7):2811-2815. (Biology)
- Konopleva M, Estrov Z, Zhao S, Andreeff M, Mehta K. Ligation of cell surface CD38 protein with agonistic monoclonal antibody induces a cell growth signal in myeloid leukemia cells. *J Immunol.* 1998; 161(9):4702-4708. (Biology)
- McMichael AJ, Beverly PCL, Gilks W, et al, ed. *Leukocyte Typing III: White Cell Differentiation Antigens*. New York: Oxford University Press; 1987. (Biology)
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