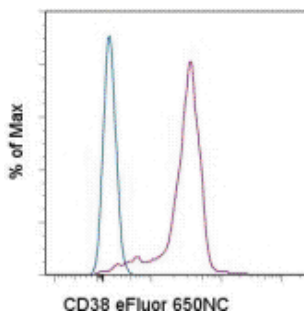


Anti-Human CD38 eFluor[®] 650NC

Catalog Number: 95-0388

Also Known As: ADP-Ribosyl Cyclase, Cyclic ADP-Ribose Hydrolase

RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of normal human peripheral blood cells with staining buffer alone (autofluorescence) (blue histogram) or Anti-Human CD38 eFluor[®] 650NC (purple histogram). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human CD38 eFluor[®] 650NC

REF **Catalog Number:** 95-0388

Clone: HB7

Concentration: 5 μ L

Host/Isotype: Mouse IgG1, kappa

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C. Light sensitive material. This product is guaranteed for 6 months upon receipt when stored properly.

LOT **Batch Code:** Refer to Vial

Use By: Refer to Vial

Caution, contains Azide

Description

The HB7 monoclonal antibody reacts with the human CD38 molecule, an approximately 45 kDa type II transmembrane protein. CD38 is an ectoenzyme which catalyses NAD into nicotinic acid adenine dinucleotide phosphate (NAADP) and cyclic ADP-ribose (cADPR), both of which are secondary messengers. Expression of CD38 is bimodal during B cell development, modulating from high in immature cells to low in intermediate ones and back to high on mature B cells. Additionally CD38 is found in a variety of tissues and other hematopoietic cells (e.g. T cells, NK cells and monocytes) and can be used to phenotype leukemias and monitor HIV-1 progression. The CD34+CD38- population of hematopoietic stem cells is thought to define the most pluripotent cells (e.g. blast colony forming cells). In addition to surface expression, CD38 has recently been found in the nucleus where it may play a role in monitoring calcium levels.

Applications Reported

This HB7 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This HB7 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 μ L per test. A test is defined as the amount of antibody that will stain a cell sample in a final volume of 100 μ L. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

The Isotype Control Mouse IgG1 eFluor[®] 650NC (cat. 95-4714) should be used at 5 μ L/test.

Laser/Filter Recommendation: When using eFluor 650NC, we recommend excitation with the 405nm violet laser with an appropriate filter set, such as the 630 LP dichroic mirror with the 660/40 bandpass filter. The eFluor 650NC can be minimally excited off of the 633 nm laser, and because its peak emission is 650nm, it will require some compensation out of the APC detector.

Fixation Recommendation: When fixing samples that have been stained with nanocrystal reagents, we recommend keeping the total volume at approximately 200 μ L. (100 μ L cells + 100 μ L IC Fixation Buffer (cat. 00-8222)) and the exposure time at 30-60 minutes to preserve the optimal fluorescent signal from the nanocrystal reagent.

For answers about fixation and other questions, please refer to Nanocrystal Frequently Asked Questions or contact eBioscience Technical Support.

References

Orciani M, Trubiani O, Guarnieri S, Ferrero E, Di Primio R. CD38 is constitutively expressed in the nucleus of human hematopoietic cells. J Cell Biochem. 2008 Oct 15;105(3):905-12.

Goldmacher VS, Bourret LA, Levine BA, Rasmussen RA, Pourshadi M, Lambert JM, Anderson KC. Anti-CD38-blocked ricin: an immunotoxin for the treatment of multiple myeloma. *Blood*. 1994 Nov 1;84(9):3017-25.

Terstappen LW, Huang S, Safford M, Lansdorp PM, Loken MR. Sequential generations of hematopoietic colonies derived from single nonlineage-committed CD34+CD38- progenitor cells. *Blood*. 1991 Mar 15;77(6):1218-27.

Jackson DG, Bell JI. 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 Apr 1;144(7):2811-5.

Related Products

00-4222 Flow Cytometry Staining Buffer

95-4714 Mouse IgG1 K Isotype Control eFluor® 650NC (P3.6.2.8.1)

Legal

Under patent number: US 7,939,170 and additional pending patent application(s)

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