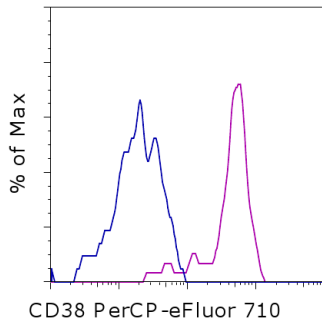


Anti-Human CD38 PerCP-eFluor[®] 710

Catalog Number: 46-0388

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 Mouse IgG1 K Isotype Control PerCP-eFluor[®] 710 (cat. 46-4714) (blue histogram) or Anti-Human CD38 PerCP-eFluor[®] 710 (purple histogram). Cells in the monocyte gate were used for analysis.

Product Information

Contents: Anti-Human CD38 PerCP-eFluor[®] 710

REF **Catalog Number:** 46-0388

Clone: HB7

Concentration: 5 uL (0.06 ug)/test

Host/Isotype: Mouse IgG1, kappa

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

Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.

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 µL (0.06 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

PerCP-eFluor[®] 710 can be used in place of PE-Cy5, PE-Cy5.5 or PerCP-Cy5.5. PerCP-eFluor[®] 710 emits at 710 nm and is excited with the blue laser (488 nm). Please make sure that your instrument is capable of detecting this fluorochrome. For a filter configuration, we recommend using the 685 LP dichroic mirror and 710/40 band pass filter, however the 695/40 band pass filter is an acceptable alternative.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 uL cell sample + 100 uL IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance

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after fixation can be made, but clone specific performance should be determined empirically.

References

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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

46-4714 Mouse IgG1 K Isotype Control PerCP-eFluor® 710 (P3.6.2.8.1)

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