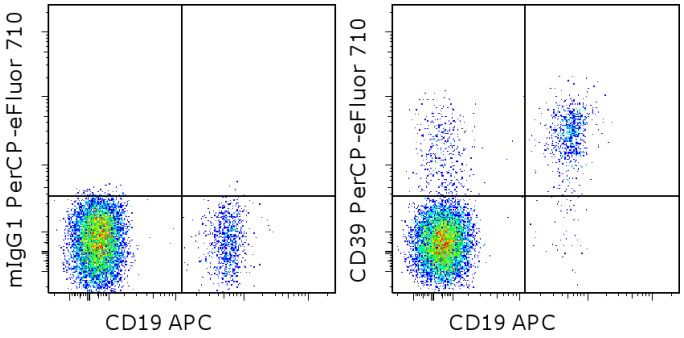
Anti-Human CD39 PerCP-eFluor® 710

Catalog Number: 46-0399
Also known as: Ectonucleoside Triphosphate Diphosphohydrolase 1, Entpd1
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of normal human peripheral blood cells with Anti-Human CD19 APC (cat. 17-0199) and Mouse IgG1 K Isotype Control PerCP-eFluor® 710 (cat. 46-4714) (left) or Anti-Human CD39 PerCP-eFluor® 710 (right). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human CD39 PerCP-eFluor® 710
REF **Catalog Number:** 46-0399
Clone: eBioA1 (A1)
Concentration: 5 uL (0.06 ug)/test
Host/Isotype: Mouse IgG1

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.
LOT **Batch Code:** Refer to vial
Use By: Refer to vial
Contains sodium azide

Description

The eBioA1 monoclonal antibody reacts with human CD39 also known as ectonucleoside triphosphate diphosphohydrolase 1 (ENTPD1) or NTPDase. CD39 is an integral membrane protein with two transmembrane domains and exists as a homotetramer. It is the most prominent ectoenzyme of the immune system. The function of CD39 is to effectively remove toxic extracellular ATP by converting it to ADP or AMP. CD39 is thought to work together with CD73 to hydrolyze ATP and has been well characterized on Langerhans cells. Expression of CD39 was originally identified on activated lymphocytes. Expression is also found on a subset of T cells, B cells and dendritic cells as well as weak staining on monocytes and granulocytes.

Recently, CD39 and CD73 have been found on regulatory T cells (Treg). Expression of CD39 on Treg may facilitate their entry into inflamed areas where high levels of ATP are present. Expression of CD39 on Foxp3+CD4+ cells ranges from 25-45%.

Applications Reported

This eBioA1 (A1) antibody has been reported for use in flow cytometric analysis.

Applications Tested

This eBioA1 (A1) antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cels. 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 10^5 to 10^8 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

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

References

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Stockl J., O. Majdic, G. Fischer, D. Maurer, W. Knapp. 2001. Monomorphic Molecules Function as Additional Recognition Structures on Haptenated Target Cells for HLA-A1-Restricted, Hapten-Specific CTL. J. Immunol. 167L:2724-2733

Aversa GG., J.A. Waugh, G.A. Bishop, B.M. Hall. 1989. Use of Monoclonal Antibodies to Study in vivo and in vitro-activated Lymphocytes. Transplant Proc. 21(1):349-50.

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Related Products

17-0199 Anti-Human CD19 APC (HIB19)
46-4714 Mouse IgG1 K Isotype Control PerCP-eFluor® 710 (P3.6.2.8.1)

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