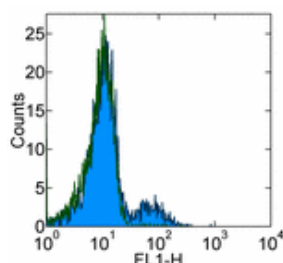


Anti-Human CD39 Purified

Catalog Number: 14-0399

Also Known As: Ectonucleoside Triphosphate Diphosphohydrolase 1, Entpd1

RUO: For Research Use Only



Staining of normal human peripheral blood cells with 0.125 µg of Mouse IgG1 κ Isotype Control Purified (cat. 14-4714) (open histogram) or Anti-Human CD39 Purified (filled histogram) followed by Anti-Mouse IgG FITC (cat. 11-4011). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human CD39 Purified

REF Catalog Number: 14-0399

Clone: eBioA1 (A1)

Concentration: 0.5 mg/ml

Host/Isotype: Mouse IgG1

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



Temperature Limitation: Store at 2-8°C.



Batch Code: Refer to Vial



Use By: Refer to Vial

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, and immunohistochemical staining.

Applications Tested

This eBioA1 (A1) antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at less than or equal to 0.25 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. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Lyck L, Dalmau I, et al. 2008. Immunohistochemical markers for quantitative studies of neurons and glia in human neocortex. *J Histochem Cytochem.* 56(3):201-21. (A1, IHC frozen, PubMed)

Borsellino G, Kleiweietfeld M, Di Mitri D, Sternjak A, Diamantini A, Giometto R, Hopner S, Centonze D, Bernardi G, Dell'acqua ML, Rossini PM, Battistini L, Rotzschke O, Falk K. 2007. Expression of ectonucleotidase CD39 by Foxp3+ Treg cells: hydrolysis of extracellular ATP and immune suppression. *Blood.* 110(4):1225-32.

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.

Aversa GG., M.G. Suranyi, J.A. Waugh, A.G. Bishop, B.M. Hall. 1988. Detection of a Late Lymphocyte Activation Marker by A1, a New Monoclonal

Antibody. Transplant Proc. 20(1):49-52.

Related Products

14-4714 Mouse IgG1 K Isotype Control Purified

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