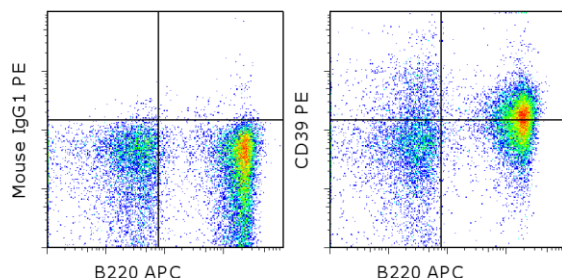


Anti-Mouse CD39 PE

Catalog Number: 12-3390

Also known as: Ectonucleoside Triphosphate Diphosphohydrolase 1, Entpd1

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



Staining of C57Bl/6 splenocytes with Anti-Human/Mouse CD45R (B220) APC (cat. 17-0452) and 0.25 ug of Mouse IgG1 kappa Isotype Control PE (cat. 12-4714) (left) or 0.25 ug of Anti-Mouse CD39 PE (right). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Mouse CD39 PE
Catalog Number: 12-3390
Clone: 5F2
Concentration: 0.2 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. Do not freeze. Light-sensitive material.

Batch Code: Refer to vial

Use By: Refer to vial



Description

This 5F2 monoclonal antibody reacts with mouse CD39, also known as NTPDase1. NTPDases are enzymes that convert nucleoside tri- and diphosphates (NTPDs) into nucleoside monophosphate (NMP), thereby removing toxic extracellular ATP and ADP. CD39 is the predominant member of this family in the immune system and is involved in suppression of inflammation and control of platelet activation. CD39 can impact expression of CD73, which is another NTPase. Together, these molecules influence inflammatory responses. CD39 is expressed on B cells, Langerhans cells, and most monocytes. In addition, CD39 is found on a subset of CD4+ T cells that are mostly CD25+FoxP3+ T reg. T reg cells from CD39-null mice showed impaired suppressive properties *in vitro* and *in vivo*.

Applications Reported

This 5F2 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This 5F2 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.5 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

Zhou Q, Yan J, Putheti P, Wu Y, Sun X, Toxavidis V, Tigges J, Kassam N, Enjyoji K, Robson SC, Strom TB, Gao W. Isolated CD39 expression on CD4+ T cells denotes both regulatory and memory populations. Am J Transplant. 2009 Oct;9(10):2303-11. (5F2, FC)

Bynoe MS, Viret C. Foxp3+CD4+ T cell-mediated immunosuppression involves extracellular nucleotide catabolism. Trends Immunol. 2008 Mar;29(3):99-102.

Borsellino G, Kleinewietfeld M, Di Mitri D, Sternjak A, Diamantini A, Giometto R, Höpner S, Centonze D, Bernardi G, Dell'Acqua ML, Rossini PM, Battistini L, Röttschke O, Falk K. Expression of ectonucleotidase CD39 by Foxp3+ Treg cells: hydrolysis of extracellular ATP and immune suppression. Blood. 2007 Aug 15;110(4):1225-32.

Not for further distribution without written consent.

Copyright © 2000-2012 eBioscience, Inc.

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.ebioscience.com • info@ebioscience.com

Anti-Mouse CD39 PE

Catalog Number: 12-3390

Also known as: Ectonucleoside Triphosphate Diphosphohydrolase 1, Entpd1

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

Deaglio S, Dwyer KM, Gao W, Friedman D, Usheva A, Erat A, Chen JF, Enjyoji K, Linden J, Oukka M, Kuchroo VK, Strom TB, Robson SC. Adenosine generation catalyzed by CD39 and CD73 expressed on regulatory T cells mediates immune suppression. J Exp Med. 2007 Jun 11;204(6):1257-65.

Mizumoto N, Kumamoto T, Robson SC, Sévigny J, Matsue H, Enjyoji K, Takashima A. CD39 is the dominant Langerhans cell-associated ecto-NTPDase: modulatory roles in inflammation and immune responsiveness. Nat Med. 2002 Apr;8(4):358-65.

Related Products

12-4714 Mouse IgG1 K Isotype Control PE (P3.6.2.8.1)

17-0452 Anti-Human/Mouse CD45R (B220) APC (RA3-6B2)