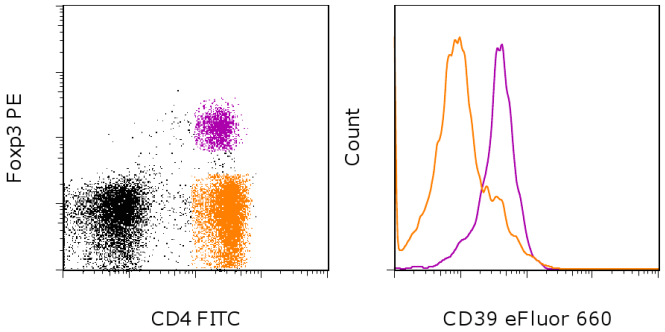
Anti-Mouse CD39 eFluor® 660 (Alexa® 647 Replacement)

Catalog Number: 50-0391
Also known as: Ectonucleoside Triphosphate Diphosphohydrolase 1, Entpd1
RUO: For Research Use Only. Not for use in diagnostic procedures.



Surface staining of mouse splenocytes with Anti-Mouse CD4 FITC (cat. 11-0041) and 0.06 ug of Anti-Mouse CD39 eFluor® 660, followed by intracellular staining with Anti-Mouse Foxp3 PE (cat. 12-5773) using the Foxp3 Staining Buffer Set (cat. 00-5523). The histogram (right) demonstrates staining of Anti-Mouse CD39 on CD4+Foxp3- cells (orange histogram) and CD4+Foxp3+ cells (purple histogram) as gated in the dot plot (left).

Product Information

Contents: Anti-Mouse CD39 eFluor® 660 (Alexa® 647 Replacement)
REF **Catalog Number:** 50-0391
Clone: 24DMS1
Concentration: 0.2 mg/mL
Host/Isotype: Rat IgG2b, kappa

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 24DMS1 monoclonal antibody reacts with mouse CD39, also known as NTPDaseI. E-NTPDases are enzymes that convert nucleoside tri- and diphosphates (NTDPs) into nucleoside monophosphate (NMP), thereby removing toxic extracellular ATP and ADP. CD39 is the dominant 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, another E-NTPase. Together, these molecules influence inflammation 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 cells. T reg cells from CD39-null mice showed impaired suppressive properties in vitro and in vivo.

Applications Reported

This 24DMS1 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This 24DMS1 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.125 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. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

eFluor® 660 is a replacement for Alexa Fluor® 647. eFluor® 660 emits at 659 nm and is excited with the red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorochome.

References

Hyman MC, Petrovic-Djergovic D, Visovatti SH, Liao H, Yanamadala S, Bouïs D, Su EJ, Lawrence DA, Broekman MJ, Marcus AJ, Pinsky DJ. Self-regulation of inflammatory cell trafficking in mice by the leukocyte surface apyrase CD39. J Clin Invest. 2009 May;119(5):1136-49. (**24DMS1**, FC, PubMed)

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

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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.

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Related Products
00-5523 Foxp3 / Transcription Factor Staining Buffer Set
11-0041 Anti-Mouse CD4 FITC (GK1.5)
12-5773 Anti-Mouse/Rat Foxp3 PE (FJK-16s)
50-4031 Rat IgG2b Isotype Control eFluor® 660

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