

# CD39 Monoclonal Antibody (5F2), PE, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Mouse / IgG1
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PE, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	5F2
Conjugate	PE
Excitation/Emission Max	565/576 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_10671014

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	2 Publications

## Product Specific Information

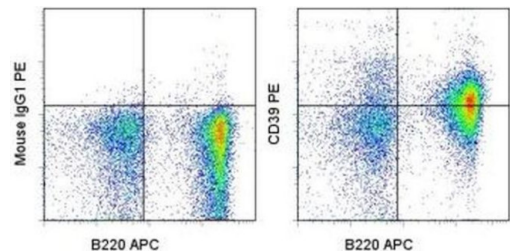
**Description:** This 5F2 monoclonal antibody reacts with mouse CD39, also known as NTPDase1. NTPDases are enzymes that convert nucleoside tri- and diphosphates (NDTPs) into nucleoside monophosphate (NMP), thereby removing toxic extracellular ATP and ADP. CD39 is the predominant member of this family 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 regs. 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 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

**Excitation:** 488-561 nm; **Emission:** 578 nm; **Laser:** Blue Laser, Green Laser, Yellow-Green Laser.

**Filtration:** 0.2 µm post-manufacturing filtered.



**CD39 Antibody (12-3390-80) in Flow**  
Staining of C57Bl/6 splenocytes with Anti-Human/Mouse CD45R (B220) APC (Product # 17-0452-82) and 0.25 µg of Mouse IgG1 kappa Isotype Control PE (Product # 12-4714-81) (left) or 0.25 µg of Anti-Mouse CD39 PE (right). Cells in the lymphocyte gate were used for analysis.

2 References

Flow Cytometry (2)

Journal of lipid research	Year 2017
<b>Complete deletion of <i>Cd39</i> is atheroprotective in apolipoprotein E-deficient mice.</b>	Species Mouse
"12-3390 was used in Flow cytometry/Cell sorting to further investigate the complex, potentially divergent roles of Cd39 in the development of atherosclerosis in mice."	Dilution 1:100
Authors: De Giorgi M,Enjyoji K,Jiang G,Csizmadia E,Mitsuhashi S,Gumina RJ,Smolenski RT,Robson SC	

The Journal of clinical investigation	Year 2009
<b>Self-regulation of inflammatory cell trafficking in mice by the leukocyte surface apyrase CD39.</b>	
"Published figure using CD39 monoclonal antibody (Product # 12-3390-80) in Flow Cytometry"	
Authors: Hyman MC,Petrovic-Djergovic D,Visovatti SH,Liao H,Yanamadala S,Bouïs D,Su EJ,Lawrence DA,Broekman MJ,Marcus AJ,Pinsky DJ	

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