

# CD39 Monoclonal Antibody (eBioA1 (A1)), Super Bright™ 702, eBioscience™

Product Details	
Size	25 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 702, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioA1 (A1)
Conjugate	Super Bright™ 702
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2784882

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.5 µg)/test	1 Publication

## Product Specific Information

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 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This eBioA1 antibody has been pre-diluted and tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at 5 µL (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.

Super Bright 702 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 702 nm. We recommend using a 710/50 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

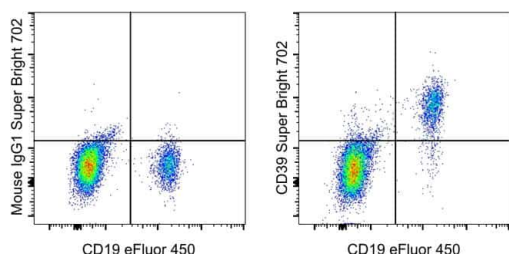
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333-57) 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.

Excitation: 405 nm; Emission: 702 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

## Product Images For CD39 Monoclonal Antibody (eBioA1 (A1)), Super Bright™ 702, eBioscience™



### CD39 Antibody (67-0399-41) in Flow

Normal human peripheral blood cells were stained with CD19 Monoclonal Antibody, eFluor 450 (Product # 48-0199-42) and Mouse IgG1 kappa Isotype Control, Super Bright 702 (Product # 67-4714-42) (left) or CD39 Monoclonal Antibody, Super Bright 702 (right). Cells in the lymphocyte gate were used for analysis.

## 1 Reference

### Flow Cytometry (1)

#### Nature communications

#### Molecular profiling of driver events in metastatic uveal melanoma.

"Published figure using CD39 monoclonal antibody (Product # 67-0399-42) in Flow Cytometry"

Authors: Karlsson J, Nilsson LM, Mitra S, Alsén S, Shelke GV, Sah VR, Forsberg EMV, Stierner U, All-Eriksson C, Einarsdottir B, Jespersen H, Ny L, Lindnér P, Larsson E, Olofsson Bagge R, Nilsson JA

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