

# Product Data Sheet

## Biotin anti-mouse CD39

**Catalog # / Size:** 135703 / 25 µg  
135704 / 100 µg

**Clone:** 5F2

**Isotype:** Mouse IgG1, κ

**Immunogen:** Purified recombinant mCD39-Ig, mCD39-expressing pcDNA3.1 plasmid, and B cells (CD39<sup>+</sup>)

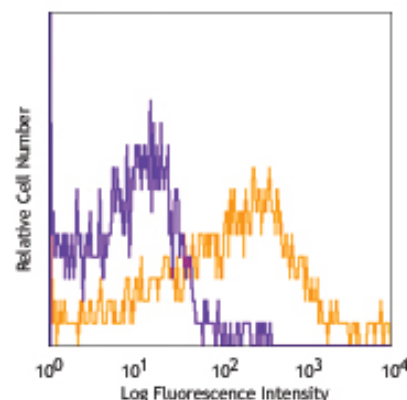
**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



CD4<sup>+</sup>CD25<sup>+</sup> (top) and CD4<sup>+</sup>CD25<sup>-</sup> cells (bottom) from C57BL/6 lymph node stained with biotinylated 5F2, followed by Sav-PE

## Applications:

**Applications:** FC - *Quality tested*  
WB, ELISA - *Reported in the literature*

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

**Application References:** 1. Zhou Q, *et al.* 2009. *Am J. Transplant.* 9(10):2303

**Description:** CD39, nucleoside triphosphate diphosphohydrolase-1 (NTPDase 1), is an ectoenzyme that degrades ATP to AMP. It is a member of ectonucleoside triphosphate dihydrolases (E-NTPDases) which are involved in regulation of extracellular nucleotide catabolism and controlling the extracellular nucleoside triphosphate pool (NTP). CD39 is the dominant member of this family in the immune system and involved in suppression of inflammation and control of platelet activation. CD39 is expressed on B cells, dendritic cells, and a subset of T cells including regulatory T cells and memory T cells. The coordinated expression of CD39/CD73 on Tregs and the adenosine A2A receptor on activated T effector cells generates immunosuppressive loops. In human studies, it has been reported that CD4<sup>+</sup>CD25<sup>-</sup>CD39<sup>+</sup> T cells are T inducers.

**Antigen References:** 1. Borsellino G *et al.* 2007. *Blood* 110(4):1225  
2. Deaglio S *et al.* 2007. *J. Exp. Med.* 204(6):1257  
3. Bynoe MS. *et al.* 2008. *Trends Immunol.* 29(3):99  
4. Ndhlovu LC. *et al.* *Eur. J. Immunol.* 2009 Oct 28. [Epub ahead of print]

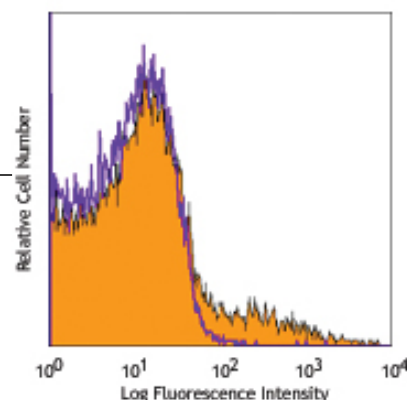
### Related Products:

**Product**  
Biotin Mouse IgG1, κ Isotype Ctrl  
Cell Staining Buffer  
RBC Lysis Buffer (10X)  
TruStain fcX™ (anti-mouse CD16/32)

**Clone**  
MOPC-21

93

**Application**  
FC, ICFC  
FC, ICC, ICFC  
FC, ICFC  
FC



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