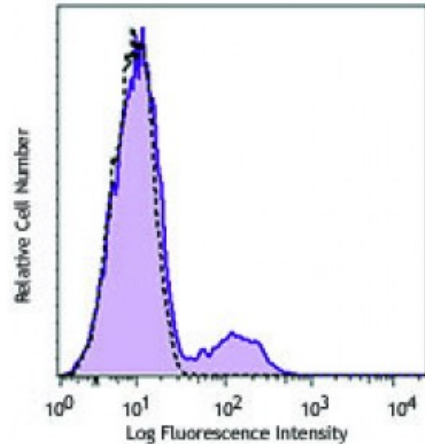


Brilliant Violet 510™ anti-human CD39

Catalog # / Size: 2241095 / 25 tests
Clone: A1
Isotype: Mouse IgG1, κ
Immunogen: PHA activated human lymphocytes
Reactivity: Human
Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 510™ and unconjugated antibody.
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Concentration: Lot-specific



Human peripheral blood lymphocytes were stained with CD39 (clone A1) Brilliant Violet 510™ (filled histogram) or mouse IgG1, κ Brilliant Violet 510™ isotype control (open histogram).

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 510™ is a trademark of Sirigen Group Ltd.

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Application Notes: The A1 antibody binds to the human CD39 cell surface antigen and has been shown to block MHC independent target cell recognition by hapten-specific CTL. Additional reported applications (for the relevant formats) include: *in vitro* CD39 blockade³, immunofluorescence⁴, and immunohistochemistry⁶. The LEAF™ purified antibody (Endotoxin <0.1 EU/microg, Azide-Free, 0.2 μm filtered) is recommended for blocking assays ([contact our custom solutions team](#)).

- Application References:**
1. Aversa GG, *et al.* 1988. *Transplant. P.* 20:4952.
 2. Aversa GG, *et al.* 1989. *Transplant. P.* 21:34950.
 3. Borsellino G, *et al.* 2007. *Blood.* 110:1225. (Block)

4. Stockl J, *et al.* 2001. *J. Immunol.* 167:2724. (IF)
 5. Sestak K, *et al.* 2007. *Vet. Immunol. Immunopathol.* 119:21.
 6. Lyck L, *et al.* 2008. *J. Histochem. Cytochem.* 56:201. (IHC)
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Description: Human CD39 is an integral membrane protein with two transmembrane domains. It exists as a homotetramer. Expression of CD39 is found on activated lymphocytes, a subset of T cells and B cells, and dendritic cells with weak staining on monocytes and granulocytes. CD39 and CD73 have been found on regulatory T cells, specifically the effector/memory like T cells. CD39 can hydrolyze both nucleoside triphosphates and diphosphates. CD39 is the dominant ecto nucleotidase of vascular and placental trophoblastic tissues and appears to modulate the functional expression of type 2 purinergic (P2) G protein coupled receptors (GPCRs). CD39 has intrinsic ecto-ATPase activity. Expression of CD39 is induced on T cells and increased on B cells as a late activation antigen.