Monoclonal Anti-mouse VE-Cadherin-APC

Catalog Number: FAB1002A
Lot Number: YFL02
100 Tests

Reagents Provided

Allophycocyanin (APC)-conjugated rat monoclonal anti-mouse VE-Cadherin: Supplied as 10 μg of antibody in 1 mL saline containing up to 0.5% BSA and 0.1% sodium azide.

Clone #: 162709

Isotype: rat IgG_{2B}

Reagents Not Provided

- Flow Cytometry Staining Buffer (Catalog # FC001) or other BSA-supplemented saline buffer.

Storage

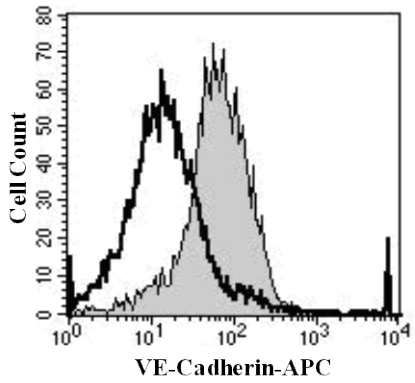
Reagents are stable for **twelve months** from the date of receipt when stored in the dark at 2° - 8° C.

Intended Use

Designed to quantitatively determine the percentage of cells bearing VE-Cadherin within a population and qualitatively determine the density of VE-Cadherin on cell surfaces by flow cytometry.

Product Description

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a rat immunized with purified, NS0-derived, recombinant mouse VE-Cadherin (rmVE-Cadherin) extracellular domain. The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography. The purified antibody was then conjugated to APC fluorochrome. Cell surface expression of VE-Cadherin is determined by flow cytometry using 620 - 650 nm wavelength excitation and monitoring emitted fluorescence with a detector optimized to collect peak emissions at 660 - 670 nm.



bEND.3 cells were stained with APC-conjugated anti-mouse VE-Cadherin (Catalog # FAB1002A, filled histogram) or APC-conjugated isotype control (Catalog # IC013A, open histogram).

Background Information

Vascular endothelial-Cadherin (VE-Cadherin), also known as Cadherin-5 and CD144, is a type I membrane protein belonging to the Cadherin superfamily of Ca^{2+}-dependent adhesion molecules that mediates adhesion via homotypic interactions. It is associated with intercellular junctions and plays a role in endothelial cell survival during remodeling and maturation.

Flow Cytometry Validation

This antibody has been tested for flow cytometry using bEND.3 cells.

1. Cells may be Fc-blocked with 1 μg of human IgG/10^5 cells for 15 minutes at room temperature. Do not wash excess blocking IgG from this reaction.
2. After blocking, 10 μL of conjugated antibody was added to up to 1 x 10^6 cells and incubated for 30 minutes at room temperature.
3. Unbound antibody was removed by washing the cells twice in Flow Cytometry Staining Buffer (Catalog # FC001). Note that whole blood requires a RBC lysis step at this point using Flow Cytometry Human Lyse Buffer (Catalog # FC002).
4. The cells were resuspended in Flow Cytometry Staining Buffer for final flow cytometric analysis. As a control for this analysis, cells in a separate tube should be treated with APC-labeled rat IgG_{2B} antibody. This procedure may need to be modified, depending upon the cell type and final utilization. Individual users may need to titrate to determine the optimal reagent amount for their specific use.

Warning: Contains sodium azide as a preservative - sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.

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