Monoclonal
Anti-mouse Rae-1 (pan-specific)-PerCP

Catalog Number: FAB17582C
Lot Number: ADIL01
100 Tests

Reagents Provided

PerCP-conjugated rat monoclonal anti-mouse Rae-1: Supplied as 25 μg of antibody in 1 mL saline containing up to 0.5% BSA and 0.09% sodium azide.

Clone #: 186107

Isotype: rat IgG_{2A}

Reagents Not Provided

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

Storage

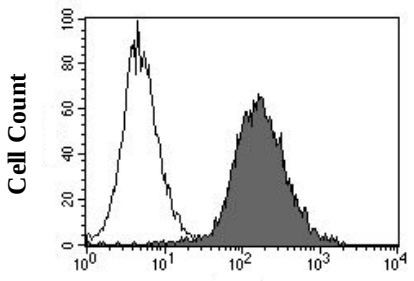
Reagents are stable for **twelve months** from the date of receipt when stored in the dark at 2-8 °C.

Intended Use

Designed to quantitatively determine the percentage of cells bearing Rae-1 within a population and qualitatively determine the density of Rae-1 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 Rae-1δ (aa 29-227; Accession # Q9JI58). The IgG fraction of the tissue culture supernatant was purified by Protein A or G affinity chromatography. The purified antibody was then conjugated to PerCP fluorochrome. Cell surface expression of Rae-1 is determined by flow cytometry. PerCP has a maximum absorption of 482 nm and 564 nm and a maximum emission of 675 nm.



Raw264.7 cells were stained with PerCP-conjugated anti-mouse Rae-1 (Catalog # FAB17582C; filled histogram) or PerCP-conjugated isotype control (Catalog # IC006C; open histogram).

Background Information

Rae-1α, β, γ, δ, and ε comprise a family of closely related (88-95% amino acid identity) GPI-linked cell surface proteins that function as ligands for mouse NKG2D, an activating receptor expressed on natural killer cells and T cells. Rae-1 transcripts are expressed in mouse embryos and several tumor cell lines but are absent from most normal adult tissues. Rae-1 protein expression on tumor cell lines has been implicated in *in vivo* tumor rejection. This antibody detects mouse Rae-1 and recognizes Rae-1α, β, γ, δ, and ε.

Flow Cytometry Validation

This antibody has been tested for flow cytometry using mouse Raw264.7 cells.

1. Cells may be Fc-blocked with 1 μg of mouse 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 Mouse Lyse Buffer (Catalog # FC003).
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 PerCP-labeled rat IgG_{2A} 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.