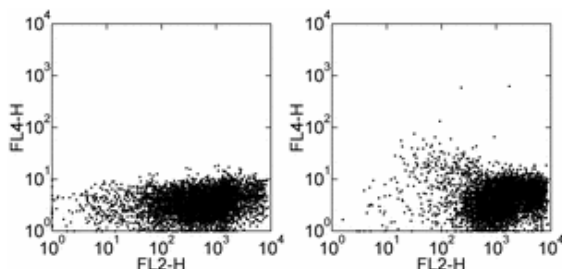


Anti-Mouse CD34 Alexa Fluor® 700

Catalog Number: 56-0341

RUO: For Research Use Only



Staining of C57BL/6 bone marrow cells with the Anti-Mouse Hematopoietic Lineage Biotin Panel (cat. 88-7774) followed by Streptavidin PE (cat. 12-4317) and staining buffer (autofluorescence) (left) or 1.0 µg of Anti-Mouse CD34 Alexa Fluor® 700 (right). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD34 Alexa Fluor® 700

REF Catalog Number: 56-0341

Clone: RAM34

Concentration: 0.2 mg/mL

Host/Isotype: Rat IgG2a, κ

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

 Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.

LOT Batch Code: Refer to Vial

 Use By: Refer to Vial

Description

The RAM34 monoclonal antibody reacts with mouse CD34, also known as mucosialin. It has been reported that the RAM34 antibody can be used to detect CD34+Sca-1+c-Kit+ cells. CD34 is a highly glycosylated (approximately 90-120 kDa) member of the sialomucin family and is expressed by capillary endothelial cells, bone marrow stroma, and a small subpopulation of mouse bone marrow cells. RAM34 has been used to purify mouse hematopoietic stem cells (HSC) to near homogeneity. CD34 expressed on endothelial cells is a ligand for CD62L and plays a role in adhesion. Simultaneous staining of mouse bone marrow cells with a cocktail of antibodies to lineage markers (CD3, CD11b, Ly6G, TER-119 and CD45R/B220) reveals a subset of cells that stain with the RAM34 antibody and express undetectable to low levels of the indicated lineage markers.

Applications Reported

This RAM34 antibody has been reported for use in flow cytometric analysis.

The Alexa Fluor® 700 emits at 723 nm and can be excited with the He-Ne 633 laser. Most instruments will require a 685 LP mirror and 710/20 filter. Please make sure that your instrument is capable of detecting this fluorochrome.

Applications Tested

This RAM34 antibody has been tested by flow cytometric analysis of mouse bone marrow cell suspensions. This can be used at less than or equal to 1.0 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Note: When staining with the RAM34 antibody an incubation time of 90 minutes is recommended to obtain the optimal signal to noise ratio.

When using direct conjugates of RAM34 to stain mouse bone marrow cells, we routinely perform two-color analysis using RAM34 in combination with a Lineage Cocktail (cat. 88-7772 or cat. 88-7774) to identify lineage-committed bone marrow cells and to better visualize the minor subset of lineage negative/low cells that stain with RAM34 as reported in the literature. Gating strategies that exclude cells with low level expression of lineage markers may significantly decrease the total number of RAM34-positive cells. If using a Lineage Cocktail and/or other markers such as CD117/c-Kit or Ly6AE/Sca-1, it is best to analyze data with two-parameter plots (dot-plots or contour-plots, etc.) for best visualization of the CD34+ population. If you are using only one-color staining, it is recommended to analyze data as a two-parameter plot of RAM34 staining vs. Forward Light Scatter (FSC). Collecting and analyzing >10,000 total events per sample is helpful in increasing the number of RAM34-positive cells. For more detailed information on staining with RAM34, please refer to the following publication PubMed.

References

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Lorenz K, Grashoff C, Torka R, Sakai T, Langbein L, Bloch W, Aumailley M, Fässler R. Integrin-linked kinase is required for epidermal and hair follicle morphogenesis. *J Cell Biol*. 2007 May 7;177(3):501-13 (RAM34, IHC, PubMed)

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Related Products

56-4321 Rat IgG2a K Isotype Control Alexa Fluor® 700

88-7772 Mouse Hematopoietic Lineage eFluor® 450 Cocktail (17A2, RA3-6B2, M1/70, TER-119, RB6-8C5)

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Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.eBioscience.com • info@eBioscience.com