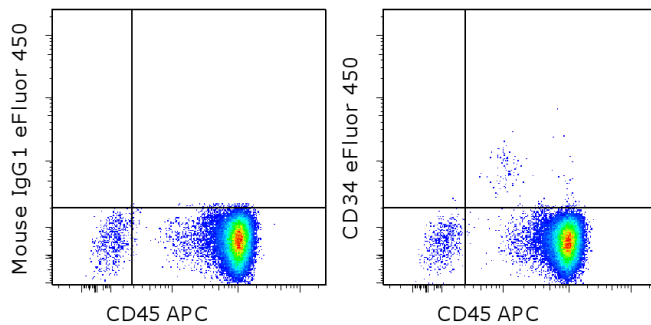


## Anti-Human CD34 eFluor<sup>®</sup> 450

**Catalog Number:** 48-0349

**Also known as:** Mucosialin, Class III epitope

**RUO: For Research Use Only. Not for use in diagnostic procedures.**



Staining of normal human peripheral blood cells with Anti-Human CD45 APC (cat. 17-0459) and Mouse IgG1 K Isotype Control eFluor<sup>®</sup> 450 (cat. 48-4714) (left) or Anti-Human CD34 eFluor<sup>®</sup> 450 (right). Cells in the lymphocyte gate were used for analysis.

### Product Information



**Contents:** Anti-Human CD34 eFluor<sup>®</sup> 450

**Catalog Number:** 48-0349

**Clone:** 4H11

**Concentration:** 5  $\mu$ L (1  $\mu$ g)/test

**Host/Isotype:** Mouse IgG1, kappa



**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.



**Batch Code:** Refer to vial



**Use By:** Refer to vial

### Description

The 4H11 monoclonal antibody reacts with human CD34, also known as mucosialin. CD34 belongs to a protein family which also includes endoglycan and podocalyxin. Members of this family are single pass transmembrane proteins with a heavily glycosylated extracellular and N-terminal mucin domain. CD34 was first identified as an antigen expressed on hematopoietic progenitors, and has since been extensively used as a marker to isolate cells capable of hematopoietic cell engraftment. In spite of this, the function of CD34 remains unresolved. In addition to expression on hematopoietic progenitors, CD34 is expressed on some populations of mesenchymal stem cells, tumor cell lines, and by vascular endothelia in the adult. Epitopes of CD34 have been assigned to three classes (class I, II or III) based on their differential sensitivity to enzymatic cleavage by neuraminidase, chymopapain, or O-glycoprotease. According to this analysis, the 4H11 antibody belongs to class III, indicating that it reacts with a protein epitope.

### Applications Reported

This 4H11 (APG) antibody has been reported for use in flow cytometric analysis.

### Applications Tested

This 4H11 (APG) antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5  $\mu$ L (1  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from  $10^5$  to  $10^8$  cells/test.

**eFluor<sup>®</sup> 450 is a replacement for Pacific Blue<sup>®</sup>. eFluor<sup>®</sup> 450 emits at 456 nm and is excited with the Violet laser (405 nm). Please make sure that your instrument is capable of detecting this fluorochrome.**

### References

Elknerová K, Lacinová Z, Soucek J, Marinov I, Stöckbauer P. Growth inhibitory effect of the antibody to hematopoietic stem cell antigen CD34 in leukemic cell lines. *Neoplasma*. 2007;54(4):311-20. (4H11, FA, FC, PubMed)

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Sutherland DR, Watt SM, Dowden G, Karhi K, Baker MA, Greaves MF, Smart JE. Structural and partial amino acid sequence analysis of the human hemopoietic progenitor cell antigen CD34. *Leukemia*. 1988 Dec;2(12):793-803.

Baumheter S, Singer MS, Henzel W, Hemmerich S, Renz M, Rosen SD, Lasky LA. Binding of L-selectin to the vascular sialomucin CD34. *Science*. 1993 Oct 15;262(5132):436-8.

### Related Products

17-0459 Anti-Human CD45 APC (HI30)

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