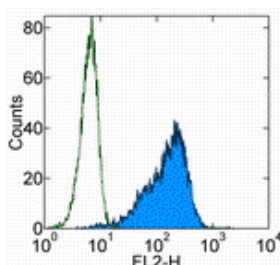


## Anti-Human CD34 Purified

**Catalog Number:** 14-0349

**Also Known As:** Mucosialin, Class III epitope

**RUO: For Research Use Only**



Staining of TF-1 cell line with 0.25 ug of Mouse IgG1 K Isotype Control Purified (cat. 14-4714) (open histogram) or 0.25 ug of Anti-Human CD34 Purified (filled histogram) followed by F(ab')<sub>2</sub> Anti-Mouse IgG PE (cat. 12-4012). Total viable cells were used for analysis.

### Product Information

**Contents:** Anti-Human CD34 Purified

**REF** **Catalog Number:** 14-0349

**Clone:** 4H11

**Concentration:** 0.5 mg/mL

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

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



**Temperature Limitation:** Store at 2-8°C.



**Batch Code:** Refer to Vial



**Use By:** Refer to Vial



**Caution, contains Azide**

### 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 antibody has been reported for use in flow cytometric analysis, and immunoblotting (WB). The 4H11 monoclonal antibody can also be used to inhibit proliferation and induce apoptosis in CD34+ cell lines including MOLM-9, JURL-MK1 and HEL.

### Applications Tested

This 4H11 antibody has been tested by flow cytometric analysis of TF-1 cells. This can be used at less than or equal to 0.5 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 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

### 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)

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

11-4011 Anti-Mouse IgG FITC

12-4012 F(ab')<sub>2</sub> Anti-Mouse IgG PE (polyclonal)

14-4714 Mouse IgG1 K Isotype Control Purified (P3.6.2.1)

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