

Monoclonal Antibody to CD34 - FITC

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| Alternate names: | Hematopoietic progenitor cell antigen CD34, Hematopoietic progenitor cell marker |
| Catalog No.: | SM2257F |
| Quantity: | 0.1 mg |
| Concentration: | 0.1 mg/ml |
| Background: | <p>The highly glycosylated 75-120 kD antigen CD34 is possibly an adhesion molecule with a putative role in early hematopoiesis by mediating the attachment of stem cells to the bone marrow extracellular matrix or directly to stromal cells. It could act as a scaffold for the attachment of lineage specific glycans, allowing stem cells to bind to lectins expressed by stromal cells or other marrow components. CD34 is thought to have a role in presenting carbohydrate ligands to selectins. The intracellular chain of the CD34 antigen is a site of phosphorylation by activated protein kinase C, suggesting a putative role in signal transduction. Two isoforms of CD34 have been reported to be generated by alternative splicing. CD34 is highly expressed on hematopoietic progenitors, as well as on endothelial cells, brain, and testis. Staining for CD34 has been used to measure angiogenesis, which reportedly predicts tumor recurrence.</p> |
| Uniprot ID: | Q28270 |
| NCBI: | NP_001003341.1 |
| GeneID: | 415130 |
| Host / Isotype: | Mouse / IgG1 |
| Clone: | 1H6 |
| Immunogen: | <p>Canine CD34 fusion protein. Remarks: Spleen cells from immunised BALB/c mice were fused with cells of the mouse NS-1/FOX-NY myeloma cell line.</p> |
| Format: | <p>State: Liquid purified IgG fraction. Purification: Affinity Chromatography on Protein G. Buffer System: PBS, pH 7.4 containing 0.09% Sodium Azide as preservative and 1% BSA as stabilizer. Label: FITC – Fluorescein Isothiocyanate Isomer 1</p> |
| Applications: | <p>Flow Cytometry: Use 10 µl of neat-1/10 diluted antibody to label 10e6 cells in 100 µl. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p> |
| Specificity: | <p>SM2257F is specific for Canine CD34, a cell surface antigen of approximately 110 kDa expressed by endothelial cells and haematopoietic stem cells. Clone 1H6 is reported for use in CD34+ enrichment studies (4,5). Species: Canine (Dog). Other species not tested.</p> |

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

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Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General References: 1. McSweeney, P. et al. (1998) Characterization of monoclonal antibodies that recognize canine CD34. *Blood*. 91: 1977-1986.
2. Goerner, M. et al. (1999) The use of granulocyte colony-stimulating factor during retroviral transduction on fibronectin fragment CH-296 enhances gene transfer into hematopoietic repopulating cells in dogs. *Blood*. 94:2287-2292.
3. Bhattacharya, V. et al. (2000) Enhanced endothelialization and microvessel formation in polyester grafts seeded with CD34+ bone marrow cells. *Blood*. 95: 581-585.
4. Goerner, M. et al. (2001) Sustained multilineage gene persistence and expression in dogs transplanted with CD34+ marrow cells transduced by RD114-pseudotype oncoretrovirus vectors. *Blood*. 98: 2065-2070.
5. Horn, P. et al. (2004) Efficient lentiviral gene transfer to canine repopulating cells using an overnight transduction protocol. *Blood*. 103: 3710-3716.
6. Avallone, G. et al. (2007) The spectrum of canine cutaneous perivascular wall tumors: morphologic, phenotypic and clinical characterization. *Vet Pathol*. 44(5):607-20.

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