Technical Data Sheet

PE Mouse Anti-Dog CD34

Product Information

 Material Number:
 559369

 Size:
 0.1 mg

 Concentration:
 0.2 mg/ml

 Clone:
 1H6

Immunogen: Dog CD34-mouse IgG2a fusion protein and dog myelomonocytic leukemia

ML3

Isotype: Mouse (BALB/c) IgG1, κ

Reactivity: QC Testing: Dog

Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 1H6 antibody reacts with CD34, an ~110 kDa glycoprotein on the surface of bone marrow-derived progenitors of hematopoietic and endothelial cells. In the bone marrow, 1-3% of cells are stained with 1H6 mAb; whereas peripheral blood leukocytes are not stained. Immunomagnetic depletion of lineage-committed leukocytes from bone marrow results in about three-fold enrichment of CD34+ cells. CD34+ hematopoietic progenitors may be mobilized to the peripheral blood by treatment with recombinant canine granulocyte colony-stimulating factor and stem-cell factor. Furthermore, CD34 is expressed on some canine leukemias. In the mouse, CD34 is also expressed on high endothelial venules (HEV) of lymph nodes and, in this form, functions as a ligand for L-selectin. CD34 expression on HEV of dog lymph nodes has been demonstrated with polyclonal anti-CD34 antibody.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

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Б	Flow cytometry	Routinely Tested	

Suggested Companion Products

Catalog Number	Name	Size	Clone
550617	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-31C

Product Notices

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/pharmingen/colors.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

Baumheter S, Singer MS, Henzel W, et al. Binding of L-selectin to the vascular sialomucin CD34. *Science*. 1993; 262(5132):436-438.(Biology)
Bhattacharya V, McSweeney PA, Shi Q, et al. Enhanced endothelialization and microvessel formation in polyester grafts seeded with CD34(+) bone marrow cells. *Blood*. 2000; 95(2):581-585.(Clone-specific)

Bruno B, Nash RA, Wallace PM, et al. CD34+ selected bone marrow grafts are radioprotective and establish mixed chimerism in dogs given high dose total body irradiation. 1999; 68(3):338-344. (Clone-specific)

Georges GE, Storb R, Bruno B, et al. Engraftment of DLA-haploidentical marrow with ex vivo expanded, retrovirally transduced cytotoxic T lymphocytes. *Blood*. 2001; 98(12):3447-3455.(Clone-specific)

Goerner M, Horn PA, Peterson L, et al. Sustained multilineage gene persistence and expression in dogs transplanted with CD34(+) marrow cells transduced by RD114-pseudotype oncoretrovirus vectors. *Blood.* 2001; 98(7):2065-2070.(Clone-specific)

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Hagglund HG, McSweeney PA, Mathioudakis G, et al. Ex vivo expansion of canine dendritic cells from CD34+ bone marrow progenitor cells. *Transplantation*. 2000; 70(10):1437-1442.(Clone-specific)

McSweeney PA, Rouleau KA, Storb R, et al. Canine CD34: cloning of the cDNA and evaluation of an antiserum to recombinant protein. *Blood.* 1996; 88(6):1992-2003.(Clone-specific)

McSweeney PA, Rouleau KA, Wallace PM, et al. Characterization of monoclonal antibodies that recognize canine CD34. *Blood*. 1998; 91(6):1977-1986. (Immunogen)

Niemeyer GP, Hudson J, Bridgman R, Spano J, Nash RA, Lothrop CD. Isolation and characterization of canine hematopoietic progenitor cells. *Exp Hematol.* 2001; 29(6):686-693.(Clone-specific)

Vernau W, Moore PF. An immunophenotypic study of canine leukemias and preliminary assessment of clonality by polymerase chain reaction. Vet Immunol Immunopathol. 1999; 69(2-4):145-164.(Clone-specific)

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