Datasheet for ABIN343729

anti-CD34 antibody (PE)

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Overview

Quantity:	100 tests
Target:	CD34
Reactivity:	Human, Non-Human Primate
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD34 antibody is conjugated to PE
Application:	Flow Cytometry (FACS)

Product Details

Purpose:	Anti-Hu CD34 PE
Immunogen:	Human endothelial vesicles
Clone:	QBEnd-10
Isotype:	IgG1
Specificity:	The antibody QBEnd-10 reacts with an extracellular class II epitope on CD34, a 110-115 kDa monomeric transmembrane phosphoglycoprotein expressed on hematopoietic progenitors cells and on the most pluripotential stem cells, it is gradually lost on progenitor cells. This antibody has been also used as an endothelial marker.
No Cross-Reactivity:	Cow, Dog, Rat, Sheep
Cross-Reactivity (Details):	Human, Non-Human Primates
Purification:	Purified antibody is conjugated with R-phycoerythrin (PE) under optimum conditions.

Product Details

	Unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

Target Details

Target:	CD34
Alternative Name:	CD34 (CD34 Products)
Background:	CD34 Molecule,CD34 is a highly glycosylated monomeric 111-115 kDa surface protein, which is present on many stem cell populations. It is a well established stem cell marker, though its expression on human hematopoietic stem cells is reversible. CD34 probably serves as a surface receptor that undergoes receptor-mediated endocytosis and regulates adhesion, differentiation and proliferation of hematopoietic stem cells and other progenitors. CD34 expression is likely to represent a specific state of hematopoietic development that may have altered adhering properties with expanding and differentiating capabilities in both in vitro and in vivo conditions.
Gene ID:	947
UniProt:	P28906

Application Details

Application Notes:	Flow cytometry: The reagent is designed for analysis of human blood cells using 20 µL reagent / 100 µL of whole blood or 10^6 cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.
Restrictions:	For Research Use only

Handling

Reconstitution:	No reconstitution is necessary.
Buffer:	Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	**Do not freeze.** Avoid prolonged exposure to light.
Storage:	4 °C

Handling

Storage Comment:	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

Publications

Product cited in:

Poblet, Jimenez-Acosta, Rocamora: "QBEND/10 (anti-CD34 antibody) in external root sheath cells and follicular tumors." in: **Journal of cutaneous pathology**, Vol. 21, Issue 3, pp. 224-8, (1994) (PubMed).

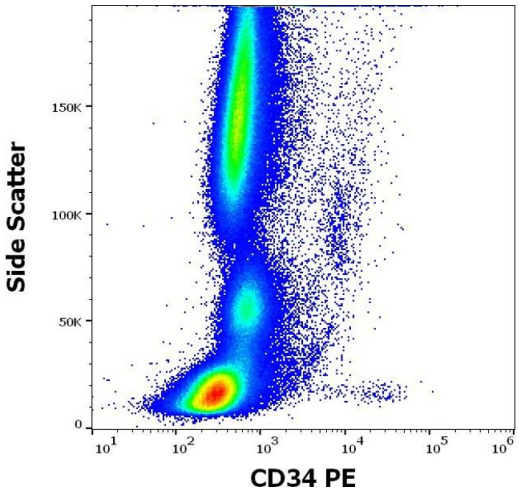
Traoré, Hirn: "Certain anti-CD34 monoclonal antibodies induce homotypic adhesion of leukemic cell lines in a CD18-dependent and a CD18-independent way." in: **European journal of immunology**, Vol. 24, Issue 10, pp. 2304-11, (1994) (PubMed).

Grimsley, Amos, Gordon, Greaves: "Rapid positive selection of CD34+ cells using magnetic microspheres coated with monoclonal antibody QBEND/10 linked via a cleavable disulphide bond." in: **Leukemia**, Vol. 7, Issue 6, pp. 898-908, (1993) (PubMed).

Kuzu, Bicknell, Harris, Jones, Gatter, Mason: "Heterogeneity of vascular endothelial cells with relevance to diagnosis of vascular tumours." in: **Journal of clinical pathology**, Vol. 45, Issue 2, pp. 143-8, (1992) (PubMed).

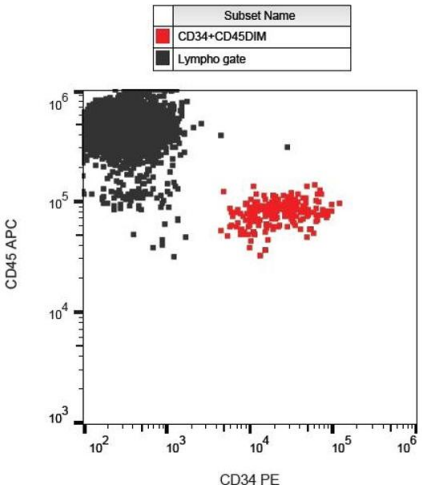
Sutherland, Marsh, Davidson, Baker, Keating, Mellors: "Differential sensitivity of CD34 epitopes to cleavage by Pasteurella haemolytica glycoprotease: implications for purification of CD34-positive progenitor cells." in: **Experimental hematology**, Vol. 20, Issue 5, pp. 590-9, (1992) (PubMed).

There are more publications referencing this product on: Product page



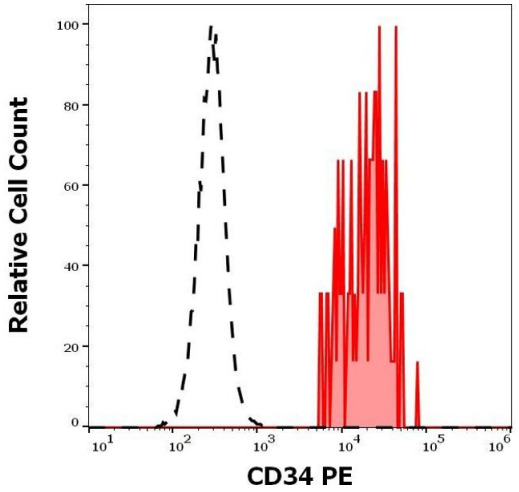
Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human peripheral whole blood stained using anti-human CD34 (QBEND-10) PE antibody (20 µL reagent / 100 µL of peripheral whole blood).



Flow Cytometry

Image 2. Flow cytometry analysis (surface staining) of CD34 in human peripheral blood with anti-CD34 (QBEnd-10) PE.



Flow Cytometry

Image 3. Separation of human CD34 positive stem cells (red-filled) from lymphocytes (black-dashed) in flow cytometry analysis (surface staining) of human peripheral whole blood stained using anti-human CD34 (QBEND-10) PE antibody (20 µL reagent / 100 µL of peripheral whole blood).