IOTest® CD34-PE

PN IM1250U – 2 mL Liquid – 20 µL / test* – Clone QBEnd10

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

The CD34 antigen is a monomeric transmembrane phosphoglycoprotein of about 110 kDa with two distinct extracellular domains. The membrane proximal domain, of about 110 amino acids, probably adopts a globular conformation. The NH2-terminal domain, of about 140 amino acids, is heavily glycosylated with both N-linked glycans and sialylated O-linked carbohydrates and probably exhibits an extended rod-like structure typical of mucin-like glycoproteins.

The CD34 antigen is expressed on hematopoietic progenitor cells of all lineages as well as the most pluripotential stem cells.

CD34 antigen expression is highest on the most primitive stem cells and is gradually lost as lineage committed progenitors differentiate.

The CD34 antigen is also present on capillary endothelial cells and on bone marrow stromal cells. Variations of glycosylation are thought to occur during normal hematopoiesis depending of lineage commitment and the level of cellular maturation.

QBEnd10 monoclonal antibody (mAb) recognizes a Pasteurella glycoprotease-sensitive class II epitope.

QBEnd10 reacts with early normal hematopoietic progenitor cells, and with vascular endothelial cells.

The QBEnd10 mAb has been assigned to the CD34 cluster of differentiation at the fourth International Workshop on Human Leucocyte Differentiation Antigens held in Vienna, Austria, in 1989 (1).

REAGENT

IOTest CD34-PE Conjugated Antibody
PN IM1250U – 2 mL Liquid – 20 µL / test*.

Clone	QBEnd10
Isotype	IgG1, mouse
Hybridoma	NSO x NZB spleen cells
Immunogen	Endothelial cell (HUVEC)
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	R-phycoerythrin (PE) is conjugated at 0.5 – 1.5 moles of PE per mole of Ig.
Fluorescence	PE (orange-red) Excites at 486 – 580 nm Emits at 568 – 590 nm

REAGENT CONTENTS

This reagent is provided in phosphate-buffered saline, with 0.1% sodium azide (NaN_3) as preservative, and 2.0 mg / mL bovine serum albumin (BSA).

STATEMENT OF WARNINGS

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.
2. Do not use antibody beyond the expiration date on the label.
3. Samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
4. Never pipet by mouth and avoid contact of samples with skin and mucous membranes
5. Minimize exposure of reagent to light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze. Minimize exposure to light.

EVIDENCE OF DETERIORATION

Any change in the physical appearance of this PE-labeled reagent (clear colorless to pinkish liquid) or any major variation in values obtained for control samples may indicate deterioration and the reagent should not be used.

REAGENT PREPARATION

No preparation is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

SELECTED RESEARCH REFERENCES

1. Civin, C.L., Trischmann, T.M., Fackler, M.J., Bernstein, I.D., Buhring, H-J., Campos, L., Greaves, M.F., Kamoun, M., Katz, D.R., Lansdorp, PM., Look, AT., Seed, B., Sutherland, D.R., Tindle, R.W., Uchanska-Ziegler, B., "Summary of CD34 cluster workshop section", 1989, Leucocyte Typing IV, Knapp, W., et al., Eds., Oxford University Press**,** 818-825.

PRODUCT AVAILABILITY

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PE is licensed under patent 4,520,110.

For additional information in the USA, call 800-526-7694.
Outside the USA, contact your local Beckman Coulter representative.

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(*): 20 µL is the quantity of product sufficient to stain 5×10^5 cells in a standard immunofluorescence assay