

### Analyte Specific Reagent.

Analytical and performance characteristics are not established.

#### SPECIFICITY

The CD31 antigen, also known as Platelet Endothelial Cell Adhesion Molecule 1 (PECAM-1), is a transmembrane glycoprotein of 130 kDa related to the immunoglobulin superfamily (1). The expression of CD31 on stem cells of the myeloid lineage, on platelets and on endothelial cell junctions (2) is reviewed in Ref. 3. CD31 is involved in the migration of leucocytes through the endothelial cell wall, via adhesion to  $\alpha v \beta 3$  integrin and to CD38 (4, 5). In addition, CD31 participates in outside-in signaling in leucocytes (6) likely through phosphorylation of its intracytoplasmic tyrosine residues 663 and 686 and subsequent association with tyrosine phosphatases SHP-1 and SHP-2 (7). On platelets, recent studies suggest a comparable mechanism of action for CD31 in activation and aggregation (8, 9).

The 5.6E monoclonal antibody has been assigned (as antibody No. P90) to the CD31 cluster of differentiation at the 4th International Workshop on Human Leucocyte Differentiation Antigens in Vienna, Austria, in 1989 (10) and further described in references 8 and 11).

#### REAGENT

IOTest CD31-Pacific Blue  
Conjugated antibody  
PN B13035 - 0.5 mL - Liquid - 10 µL/test

<b>Clone</b>	5.6E
<b>Isotype</b>	IgG1, Mouse
<b>Immunogen</b>	Muscle tissue extract (rhabdomyosarcoma)
<b>Hybridoma Source</b>	NS1 x balb/c Ascites fluid or supernatant of in vitro cultured hybridoma cells.
<b>Purification</b>	Affinity chromatography
<b>Conjugation</b>	Pacific Blue
<b>Molar Ratio</b>	Pacific Blue / Ig : 6.0 - 8.0
<b>Fluorescence</b>	Excites at 405 nm Emits at 455 nm

#### REAGENT CONTENTS

This antibody is provided in phosphate-buffered saline, containing 0.1% sodium azide and 2 mg/mL bovine serum albumin.

#### STATEMENTS OF WARNING

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. Specimens, samples and all material coming in contact with them should be considered potentially infectious and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong 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 AND HANDLING CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze. No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

#### SELECTED RESEARCH REFERENCES

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9. Varon, D., Jackson, D.E., Shenkman, B., Dardik, R., Tamarin, I., Savion, N., Newman, P.J., "Platelet / endothelial cell adhesion molecule-1 serves as a costimulatory agonist receptor that modulates integrin-dependent adhesion and aggregation of human platelets", 1998, *Blood*, 91, 500-507.
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11. Mutin, M., Dignat-George, F., Sampol, J., "Immunologic phenotype of cultured endothelial cells: quantitative analysis of cell surface molecules", 1997, *Tissue Antigens*, 50, 449-458.

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