

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

The CD34 glycoprotein is a transmembrane single chain molecule. Its molecular weight is about 110 kDa. The extracellular domain is heavily N- and O-glycosylated (1-4) and the cytoplasmic sequence reveals two sites for activated protein kinase C phosphorylation and one site for tyrosine phosphorylation (3). This antigen is the earliest known marker in human for hematopoietic progenitor cells (5, 6). CD34 is expressed on virtually all hematopoietic precursor cells (7), including the multipotent stem cells (8). However, the CD34 glycoprotein expression is not restricted to hematopoietic progenitors (9) and has been detected on capillary endothelial cells (9, 10), and on bone marrow stromal cells and their precursors (11).

There are three classes of CD34 epitopes defined by differential sensitivity to enzymatic cleavage with glycoprotease from *Pasteurella haemolytica* and with neuraminidase (4). The 581 monoclonal antibody (mAb) recognizes specifically a class III epitope, neuraminidase- and glycoprotease-resistant (12, 13).

This 581 mAb has been assigned to the CD34 cluster of differentiation at the 5th International Workshop on Human Leukocyte Differentiation Antigens in Boston, USA, in 1993 (12).

REAGENT

IOTest CD34-APC-Alexa Fluor 700

Conjugated antibody

PN A86354 - 50 tests - Liquid - 10 µL/test*

Clone	581
Isotype	IgG1, Mouse
Immunogen	Leucemie CD34+ et KG1a
Hybridoma	NS0 x spleen B cells
Source	Ascites fluid
Purification	Affinity chromatography
Conjugation	Allophycocyanin -Alexa Fluor 700 (APC- Alexa Fluor 700)
Molar Ratio	APC-Alexa Fluor 700 / Ig : 0.5 - 1.5
Fluorescence	Excites at 633/638 nm Emits at 720 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 CONDITIONS AND STABILITY

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

REAGENT PREPARATION

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

PRECAUTIONS

Due to the tandem structure of the fluorochrome, APC-Alexa Fluor 700 also emits light at 660 nm. This secondary emission peak varies from lot-to-lot of APC-Alexa Fluor 700. Therefore, for multi-color analysis, the compensation matrix should be carefully checked when changing the lot of a APC-Alexa Fluor 700-conjugate.

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(*): 10 µL is the quantity of product sufficient to stain
5 x 10⁵ cells in a standard immunofluorescence assay

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