

# Monoclonal Antibody CD34

PN IM1167 – Purified – Liquid 1 mL – 1 mg – Clone Immu133

For Research Use Only. Not for use in diagnostic procedures.

## 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).

There are three classes of CD34 epitopes defined by differential sensitivity to enzymatic cleavage with glycoprotease from *Pasteurella haemolytica*, with chymopapain and with neuraminidase.

The Immu133 monoclonal antibody recognizes specifically a Class I epitope, neuraminidase sensitive, and glycoprotease sensitive which is regularly expressed on normal samples.

The CD34 molecule is expressed on virtually all hematopoietic precursor cells (7), including the multipotent stem cells (8). The CD34 molecule is the earliest marker in human for precursors of colony forming cells in the bone marrow (5, 6).

The CD34 glycoprotein is not restricted to hematopoietic progenitors (9) and has been detected on capillary endothelial cells (9 – 11), and on bone marrow stromal cells and their precursors (12).

The Immu133 monoclonal antibody has been assigned to the CD34 cluster of differentiation at the Vth International Workshop on Human Leukocyte Differentiation Antigens in Boston, USA, in 1993 (13).

## REAGENT

Monoclonal Antibody CD34  
PN IM1167 – Purified – Liquid

<b>Clone</b>	Immu133
<b>Isotype</b>	IgG1
<b>Immunogen</b>	KG1a cell line
<b>Hybridoma</b>	P3-X63-Ag.8.653 x Balb/c spleen cells
<b>Species</b>	Mouse
<b>Source</b>	ascites fluid
<b>Purification</b>	Protein A affinity chromatography

## REAGENT CONTENTS

Borate buffer (0.020 M) saline (0.15 M), pH 8.8.

This liquid form is 0.22µm filtered without any other proteins and without any preservatives.

## STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes
3. Do not use antibody beyond the expiration date on the label.
4. Do not expose reagents to strong light during storage or incubation.
5. Avoid microbial contamination of reagents or incorrect results might occur.
6. Use good laboratory practices when handling this reagent.

## STORAGE CONDITIONS AND STABILITY

For a long-term storage a preservative should be added.

This reagent is stable up to the expiration date on the vial label when stored at 2 – 8°C.

## REAGENT PREPARATION

No reconstitution is necessary.

## APPLICATIONS

Flow cytometry, Immunoprecipitation or others methods

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

## SELECTED RESEARCH REFERENCES

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## PRODUCT AVAILABILITY

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For additional information in the USA, call 800-526-7694.

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