

PN IM2657 CD117 - PC5 (95C3)
100 tests
10 µL/test



IOTest[®]
 Conjugated Antibodies

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

SPECIFICITY

The antibody recognizes an extracellular epitope of the proto-oncogene and Class III receptor tyrosine kinase c-kit (1). This antigen has been shown to be the receptor for a growth factor encoded by the steel locus and known as steel factor (SLF), stem cell factor (SCF), mast cell growth factor MGF or KIT ligand (KL). Studies have shown that the CD117 antigen is expressed on 0.6-3.4% of normal bone marrow cells which comprise BFU-E, CFU-GEMM, CFU-GM and CFU-G (2,3). 19-51% of CD34-positive bone marrow cells coexpress c-kit (3). The antibody specifically recognizes cells transfected with c-kit.

REAGENT

- Clone** 95C3
- Isotype** IgG1 mouse
- Immunogen** Leukemic blast from Null-All
- Hybridoma** P3-X63-Ag 8 653 x Balb/c spleen cells
- Source** Ascites fluid
- Purification** Ion exchange or affinity chromatography
- Conjugation** PC5. The IgG is conjugated to a tandem dye constituted of R-phycoerythrin covalently linked to cyanin 5.1 at 0.7-1 mole of PC5 per mole of IgG
- Excitation wavelength** 488 nm
- Maximum emission wavelength** 670 nm
- Main emission color** Deep-red
- Buffer** 2 mg/mL bovine serum albumin in phosphate-buffered saline containing 0.1% sodium azide

APPLICATION

Flow cytometry

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 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.
- 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.

STORAGE CONDITIONS AND STABILITY

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

REAGENT PREPARATION

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 20 - 25 °C prior to use.

PROCEDURE

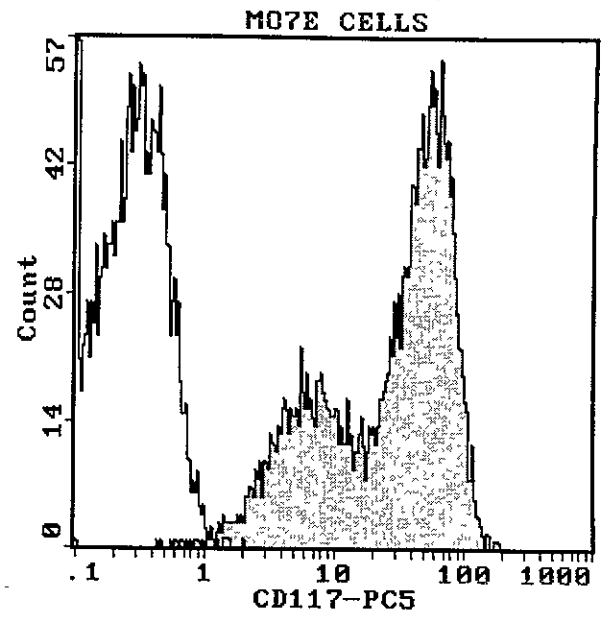
This reagent is designed for Flow Cytometry. Assay volume: 10 µL/5 x 10⁵ cells / test or 100µL whole blood. A wash is required to yield optimal results.

EXAMPLE DATA

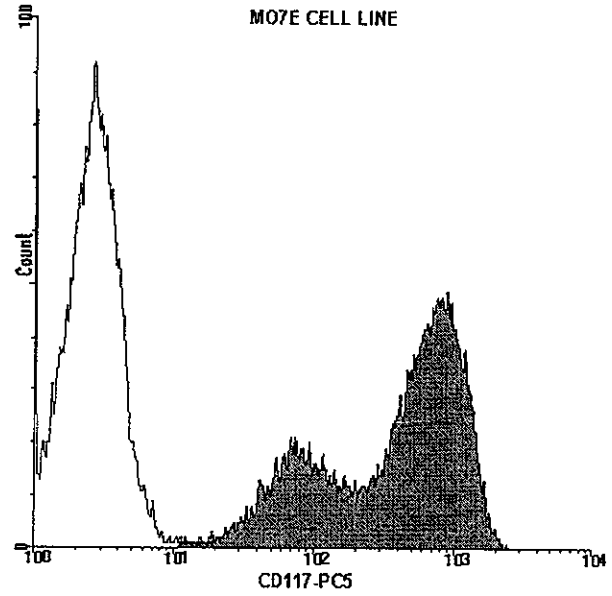
The histograms below are monoparametric representations (Count versus Fluorescence Intensity) of MO7E cell line. Staining is with

CD117-PC5 monoclonal antibody (PN IM2657). The isotypic control (PN IM2663) labeling is shown underneath in light.

Acquisition is with a COULTER R EPICS R XL TM flow cytometer. Analysis is with the XL SYSTEM II TM software.



Acquisition is with a Becton Dickinson FACScan TM flow cytometer. Analysis is with the LYSYS II TM software.



PARTNERS IN CELL ANALYSIS



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SELECTED RESEARCH REFERENCES

- 1-[181] Bühring, H-J, Ulrich, A, Schaudt, K., Muller, C A., Busch, F W., "The product of the proto-oncogene c-kit (P145ckit) is a human bone marrow surface antigen of hemopoietic precursor cells which is expressed on a subset of acute non-lymphoblastic leukemic cells", 1991, Leukemia, 5, 854-860
- 2-[182] Broudy, V C, Lin, N, Zsebo, K M, Birkett, N C, Smith, K A, Bernstein, I D, Papayannopoulou, T, "Isolation and characterization of a monoclonal antibody that recognizes the human c-kit receptor", 1992, Blood, 79, 338
- 3-[1700] Strobl, H., Takimoto, M, Majdic, O., Hocker, P, Knapp, W, "Antigenic analysis of human haemopoietic progenitor cells expressing the growth factor receptor c-kit", 1992, Br J Haematol., 82, 287-294

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