Monoclonal Antibody IOTest® CD117-PC5.5

PN A66333 - 50 tests - Liquid - 10 µL/test* - Clone 104D2D1

Analyte Specific Reagent.
Analytical and performance characteristics are not established.

SPECIFICITY

The CD117 antigen, also known as Stem Cell Factor Receptor (SCFR), mast-cell-Kit, and steel factor receptor, is a 145 kDa transmembrane glycoprotein encoded by the c-kit proto-oncogen (1).
The CD117 molecule belongs to the class III Receptor Tyrosine Kinase (RTK) family.
Within the haematopoeitic compartment, the CD117 molecule is expressed on approximately 50 % of $CD34^+$ progenitors engaged in erythrocytic (2), myelo-monocytic and megakaryocytic differentiation (2, 3).
Although CD117 is primarily a marker for non-lymphoid progenitor, it has been reported to be detected on early lymphoid progenitor (3).
CD117 expression has been found on a small subset of resting NK cells ($CD56^{bright}$), and about 30% of immature $CD3^-$ $CD4^-$ $CD8^-$ thymocytes (2). CD117 is also expressed on mast cells (2, 3) and detected on non-hematopoietic cells such as reproductive system, melanocytes and embryonic brain (2).
MAb 104D2D1 was assigned to CD117 during the 6th HLDA Workshop on Human Leucocyte Differentiation Antigens held in Kobe, Japan, in 1996 (WS Code: C-30. Section C) (2).

REAGENT

IOTest CD117-PC5.5 Conjugated Antibody
PN A66333 - 50 tests - Liquid - 10 µL/test*

Clone	104D2D1
Isotype	IgG1 kappa, Mouse
Immunogen	MOLM-1 line
Hybridoma	SP2 x Balb/c
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	R Phycoerythrin-Cyanin 5.5 (PC5.5)
Molar Ratio	PC5.5 / Ig : 0.5 - 1.5
Fluorescence	Excites at 488 nm Emits at 692 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 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.
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, PC5.5 also emits light at 575 nm. This secondary emission peak varies from lot-to-lot of PC5.5. Therefore, for multi-color analysis, the compensation matrix should be carefully checked when changing the lot of a PC5.5-conjugate.

SELECTED RESEARCH REFERENCES

1. Kikutani, H., Kishimoto, T., "The cytokine receptors: Section report", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1855-1864.
2. Ashman, L.K., Cambareri, A.C., Nguyen, L., Bühring, H-J., "CD117 Workshop panel report", 1997, Leucocyte Typing VI, White Cell Differentiation Antigens. Kishimoto, T., et al, Eds., Garland Publishing, Inc., 816-818.
3. Uoshima, N., Ozawa, M., Kimura, S., Tanaka, K., Wada, K., Kobayashi, Y., Kondo, M., "Changes in c-Kit expression and effects of SCF during differentiation of human erythroid progenitor cells", 1995, Br. J. Haematol., 91, 30-36.

TRADEMARKS AND PATENT

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Printed in France.
Made in France.

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

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