IOTest® CD18-PE

PN IM1570U – 2 mL Liquid – 20 µL / test* – Clone 7E4

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

CD18 is the 95 kDa integrin β2-chain which forms non-covalently-bound heterodimers with the integrin α subunits: CD11a, CD11b and CD11c (αL, αM and αX, respectively) (1, 2).

CD18 is expressed by all leucocytes, activated platelets and megakaryocytic cell lines (3, 4).

The 7E4 monoclonal antibody (mAb) stains lymphocytes, granulocytes and macrophages in tonsil, lymph nodes and liver. It is found in the small bowel with increased expression in inflamed tissues (5, 6).

The 7E4 mAb has been assigned to the CD18 cluster of differentiation at the sixth International Workshop on Human Leucocyte Differentiation Antigens held in Kobe, Japan, in 1996 (5).

REAGENT

IOTest CD18-PE Conjugated Antibody
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Clone	7E4
Isotype	IgG1, mouse
Immunogen	Purified gp90-160 complex
Hybridoma	P3-X63-Ag.8-653 x Balb/c spleen cells
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	R-phycoerythrin (PE) is conjugated at 0.5 – 1.5 moles of PE per mole of Ig.
Fluorescence	PE (orange-red) Excites at 486–580 nm Emits at 568 – 590 nm

REAGENT CONTENTS

This reagent is provided in phosphate-buffered saline, with 0.1% sodium azide (NaN_3) as preservative, and 2.0 mg / mL bovine serum albumin (BSA).

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. Do not use antibody beyond the expiration date on the label.
3. Samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
4. Never pipet by mouth and avoid contact of samples with skin and mucous membranes
5. Minimize exposure of reagent to 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. Minimize exposure to light.

EVIDENCE OF DETERIORATION

Any change in the physical appearance of this PE-labeled reagent (clear colorless to pinkish liquid) or any major variation in values obtained for control samples may indicate deterioration and the reagent should not be used.

REAGENT PREPARATION

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

SELECTED RESEARCH REFERENCES

1. Price, T.H., Beatty, P.G., Corpuz, S.R., "In vivo inhibition of neutrophil function in the rabbit using Mab to CD18".1987, J. Immunol., 139, 4174-4177.
2. Kishimoto, T.K., O'Connor, K., Lee, A., Roberts, T.M., Springer, T.A., "Cloning of the β subunit of the leucocyte adhesion proteins, homology to an extracellular matrix receptor defines as novel supergene family", 1987, Cell, 48, 681-690.
3. Hogg, N, McDowall, A., "CD18 Workshop panel report", 1997, in Leucocyte Typing VI, Kishimoto, T., et al, Eds., 355-357
4. Philippeaux, M.M., Vesin, C., Tacchini-Cottier, F., Piguet, P.F., "Activated human platelets express β2 integrin", 1996, Eur. J. Haematol., 56, 130-137
5. Kishimoto, T.K., Hollander, N., Roberts, T.M., Anderson, D.C., Springer, T.A., "Heterogenous mutations in the β subunit common to the LFA-1, Mac-1 and p.150-95 glycoproteins cause leucocyte adhesion.deficiency" 1987, Cell, 50, 193-202.
6. Nortamo.P, Patarroyo M, Kantor, C., Suopanki, J., Gahmberg, C.G., "Immunological mapping of the human leucocyte adhesion glycoprotein gp90 (CD18) by monoclonal antibodies", 1988, Scand. J. Immunol, 28, 537-546.

PRODUCT AVAILABILITY

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PE is licensed under patent 4,520,110.

For additional information in the USA, call 800-526-7694.
Outside the USA, contact your local Beckman Coulter representative.

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TRADEMARKS

Manufactured by:
Immunotech, a Beckman Coulter Company
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(*): 20 µL is the quantity of product sufficient to stain 5×10^5 cells in a standard immunofluorescence assay

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