IOTest® CD59-FITC

PN IM3457U – 2 mL Liquid – 20 µL / test* – Clone P282E

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

The CD59 antigen, also known as Protectin or Membrane Inhibitor of Reactive Lysis (MIRL) is a 18 – 20 kDa, single-chain, glycosylphosphatidylinositol (GPI)-anchored cell surface protein that belongs to the Ly-6 super family (1 – 3). CD59 is expressed on all hematopoietic cells and is widely expressed on cells in all tissues (2). CD59 inhibits complement lysis by binding to the C5b-8 and C5b-9 complexes and thus preventing formation of the polymeric C9 complex during the final steps of membrane attack complex (MAC) (4). CD59, which is a second ligand for CD2 (5), functions as a signal-transducing molecule for human T-cell activation (6, 7).

P282E has been assigned to the CD59 cluster of differentiation at the 5th International Workshop on Human Leucocyte Differentiation Antigens in Boston, U.S.A., in 1993 (2).

REAGENT

IOTest CD59-FITC Conjugated Antibody
PN IM3457U – 2 mL Liquid – 20 µL / test*.

Clone	P282E
Isotype	IgG2a, mouse
Immunogen	Human red cells
Hybridoma	NS/1 x Balb/cJ
Source	Ascites fluid
Purification	Ion exchange or affinity chromatography
Conjugation	FITC (Fluorescein isothiocyanate) is conjugated at 3 – 10 moles of FITC per mole of Ig.
Fluorescence	FITC (Green) Excites at 468 – 509 nm Emits at 504 – 541 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 FITC-labeled reagent (clear, colorless to yellowish-green 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. Groux, H., Huet, S., Aubrit, F., Tran, H.C., Boumsell, L., Bernard, A., "A 19-kDa human erythrocyte molecule H19 is involved in rosettes, present on nucleated cells, and required for T cell activation. Comparison of the roles of H19 and LFA-3 molecules in T cell activation", 1989, J. Immunol., 142, 3013-3020.
2. Klickstein, L.B., Springer, T.A., "Adhesion structure subpanel 1, E rosetting/GPI anchor: CD2, CD48, CD55, CD58, CD59, CD99, and CDw108", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1468-1477.
3. Sawada, R., Ohashi, K., Anaguchi, H., Okazaki, H., Hattori, M., Minato, N., Naruto, M., "Isolation and expression of the full-lenght cDNA encoding CD59 antigen of human lymphocytes", 1990, DNA Cell Biol., 9, 213-220.
4. Bodian, D.L., Davis, S.J., Morgan, B.P., Rushmere, N.K., "Mutational analysis of the active site and antibody epitopes of the complement-inhibitory glycoprotein, CD59", 1997, J. Exp. Med., 185, 507-516.
5. Bowden, G., Diaz, L.A., Li, L.L., Fox, D.A., "Epitopes and functional responses defined by Workshop anti-CD2 mAb", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 346-347.
6. Korty, P.E., Brando, C., Shevach, E.M., "CD59 functions as a signal-transducing molecule for human T cell activation", 1991, J. Immunol., 146, 4092-4098.
7. Horejsi, V., Drbal, K., Cebecauer, M., Cerny, J., Brdicka, T., Angelisova, P., Stockinger, H., "GPI-microdomains: a role in signalling via immunoreceptors", 1999, Immunol. Today, 20, 356-361.

PRODUCT AVAILABILITY

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

TRADEMARKS

Manufactured by:
Immunotech SAS, a Beckman Coulter Company
130, avenue de Lattre de Tassigny, B.P. 177
13276 Marseille Cedex 9, France

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