IOTest® CD61 -FITC

PN IM1758U – 2 mL Liquid – 20 µL / test* – Clone SZ21

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

CD61 (platelet glycoprotein GPIIIa) is the 110 kDa integrin beta3 subunit which is mainly expressed on platelets and endothelial cells.
On platelets, it is non-covalently associated with the integrin alphaIIb chain (CD41, platelet GPIIb) to form the GPIIb/IIIa complex (alphaIIb/beta3 integrin) or high affinity receptor for the fibrinogen(1).
Independently of CD41, CD61 is also associated with the integrin alphaV (CD51) to form the vitronectin receptor (2).
CD41/CD61 is expressed only by platelets and megakaryocytes, whereas CD51/CD61 is found on osteoclasts, endothelial cells, macrophages, fibroblasts, smooth muscle cells, synovial lining cells and renal glomeruli (3).
SZ21 does not react with the A2 allele (4, 5) and shows a markedly reduced reactivity with PlA2 platelets, thus proving a useful tool to distinguish PlA1 from PlA2 (5).
It recognizes the human integrin beta3 Cys26-Cys38 loop sequence (6).
The SZ21 monoclonal antibody, specific for CD61 (6, 7), has been assigned to the CD61 at the 5th HLDA Workshop on Human Leucocyte Differentiation Antigens in Boston, USA in 1993 (WS Code: P088) (8).

REAGENT

IOTest CD61-FITC Conjugated Antibody
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Clone	SZ21
Isotype	IgG1, mouse
Immunogen	Washed human platelets
Hybridoma	P3-X63-Ag.8.653 x Balb/c
Source	Ascites fluid
Purification	Affinity chromatography on protein A
Conjugation	FITC (Fluorescein isothiocyanate) is conjugated at 5 – 9 moles of FITC per mole of Ig.
FITC (Green)	Excites at 468 – 509 nm Emits at 504 – 541 nm
Buffer	2 mg/mL bovine serum albumin in phosphate-buffered saline containing 0.1% sodium azide.

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. All specimens and samples must be considered as potentially infectious and must be handled with care (in particular: the wearing of protective gloves, gowns and goggles).
3. Do not expose reagents to strong light during storage or incubation.
4. Avoid microbial contamination of reagents or incorrect results might occur.
5. Avoid contact of samples with skin mucosa and eyes. Never pipet by mouth
6. Do not use reagent beyond the expiration date on the vial label.
7. Let it come to room temperature (18 – 25°C) before use.
8. Use general 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 reconstitution 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. Naik, U.P., Parise, L.V., "Structure and function of platelet α-aIIb-β3", Curr. Opin. Hematol., 4, 317-322.
2. Hynes, R.O., "Integrins: A family of cell surface receptors", 1987, Cell, 48, 549-554.
3. De Haas, M., von der Borne, A.E.G.Kr., "CD41/CD61 workshop panel report", 1996, Leucocyte Typing VI, White cell Differentiation Antigens, Kishimoto, T., et al, Eds., Garland Publishing, Inc., 643-644.
4. Honda, S., Honda, Y., Bauer, B., Ruan, C., Kunicki, T.J., "The impact of three-dimensional structure on the expression of PIA alloantigens on human integrin β3", 1995, Blood, 86, 234-242.
5. Weiss, E.J., Goldschmidt-Clermont, P.J., Grigoryev, D., Jin, Y., Kickler, T.S., Bray, P.F., "A monoclonal antibody (SZ21) specific for platelet GPIIIa distinguishes PIA1 from PIA2", 1995, Tissue Antigens, 46, 374-381.
6. Ruan, C., Du, X., Wan, H., Hu, X., Xi, X., Li, P., "Characterization of the fibrinogen binding sites using monoclonal antibodies to human platelet membrane glycoproteins IIb/IIIa", 1987, Thromb. Haemostas., 1, 58, 243 (abstract).
7. Chong, B.H., Du, X., Berndt, C., Horn, S., Chesterman, C.N., "Characterization of the binding domains on platelet glycoproteins Ib-IX and IIb/IIIa complexes for the quinine/quinine-dependent antibodies", 1991, Blood, 10, 77, 2190-2199
8. Blanchard, D., Borche, L., Petit-Frioux, Y., Müller, J.Y., "Cell expression and biochemical characterization of platelet antigens recognized by workshop platetlet panel mAb", 1995, Leucocyte Typing V, White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1225-1229.

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, 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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