IOTest® HLA-ABC-FITC

PN IM1838 – 100 tests – 20 µL/test – Clone B9.12.1

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

SPECIFICITY

HLA-A, -B, and -C are major histocompatibility complex (MHC)-class I antigens. Like other class I molecules (i.e. HLA-E, -F, -G), HLA-A, -B, and -C are hetero-dimers consisting of a 40 – 45 kDa transmembrane glycoproteic α-chain, non-covalently combined to the invariant β2-micro-globulin. All class I molecules have conserved, monomorphic domains, but are also characterized by their extensive degree of allelic polymorphism. The structure and biology of HLA molecules are reviewed in Ref. 1. MHC molecules play a central role in the immune response: They are involved in the maturation of T cell repertoire, in the activation of T lymphocytes by presentation of xenogenic peptides or in the allogenic response (1).

HLA-A, -B and -C are "classical" MHC Class I molecules and are expressed on the surface of most nucleated human cell types. The cellular distibution of Class I molecules on non-lymphoid tissues is reviewed in Ref.2.

The B9.12.1 monoclonal antibody recognizes a monomorphic epitope common to HLA-A, -B and -C molecules (3).

REAGENT

IOTest HLA-ABC-FITC Conjugated Antibody
PN IM1838 – 2 mL Liquid – 20 µL / test

Clone	B9.12.1
Hybridoma	NS1/AG.4.1 x Balb/c
Immunogen	HLA-A2 T-cell clone
Ig. Chain	IgG2a κ mouse
Purification	Protein A affinity chromatography
Conjugation	FITC (Fluorescein isothiocyanate)
Molar Ratio	FITC / protein: 4 – 8
Fluorescence	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.

APPLICATION

Flow cytometry:
Analysis of the antigen profile of Class I HLA molecules which are expressed at the cell surface. Analysis of the tissue distribution of Class I antigens in relation to differentiation during haematopoiesis.
Not for use in the determination of HLA tissue groups.

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

This reagent is stable up to the expiration date when stored at 2 – 8°C in the dark. Do not freeze. Minimize exposure to light.

REAGENT PREPARATION

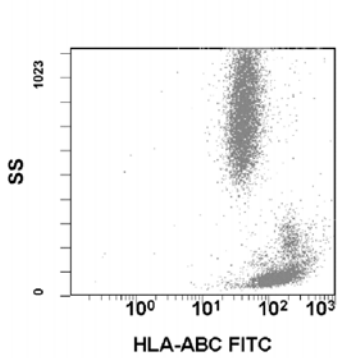
No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

PROCEDURE

This reagent is designed for flow cytometry.
Assay volume: 20 µL per 5 x 10^5 cells in one test, or per 100 µL whole blood.
A wash is required to yield optimal results.

EXAMPLE DATA

The histogram below is a biparametric representation (Side Scatter versus Fluorescence Intensity) of lyzed normal whole blood sample. Staining is with HLA-ABC-FITC Conjugated Antibody (PN IM1838) gated on leucocytes.
Acquisition is with a COULTER® EPICS® XL™ flow cytometer. Analysis is with the CXP software.



SELECTED RESEARCH REFERENCES

1. Krensky, A.M., Clayberger, C., "Structure of HLA molecules and immunosuppressive effects of HLA derived peptides", 1996, Intern. Rev. Immunol., 13, 173-185
2. Daar, A.S., Fuggle, S.V., Fabre, J.W., Ting, A., Morris, P.J., "The detailed distribution of HLA-A, B, C antigens in normal human organs", 1984, Transplantation, 38, 287-292
3. Malissen, B., Rebau, N., Liaboeuf, A., Mawas, C., "Human-cytotoxic T cell structures associated with expression of cytolysis. I- Analysis at the clonal cell level of the cytolysis-inhibiting effect of 7 monoclonal antibodies", 1982, Eur. J. Immunol., 12, 739-747.

PRODUCT AVAILABILITY

IOTest HLA-ABC-FITC Conjugated Antibody
PN IM1838 – 100 tests – 20 µL/test

TRADEMARKS

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

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