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Not for use in diagnostic procedures.

SPECIFICITY

The CD69 molecule is a type II integral membrane protein with a molecular weight of 27-33 kDa under reduced conditions. It is expressed as a disulfide-linked homodimer composed of differentially glycosylated subunits within the extracellular C-type lectin domain.¹ CD69 is the earliest inducible cell surface glycoprotein to appear upon in vitro activation of T cells, NK cells, and B cells.² CD69 is undetectable on most of the circulating peripheral blood lymphocytes.³ Resting T cells do not express CD69. However, they may express it rapidly by triggering of their TCR/CD3 complex. Similarly, the majority of peripheral blood NK cells are negative for CD69, but express it shortly after activation with PMA, IL-2, Interferon α , or CD16 monoclonal antibody.⁴ CD69 is constitutively expressed in a subpopulation of thymocytes and platelets.⁵ The TP1.55.3 monoclonal antibody reacts with activated T lymphocytes.³ It has been studied at the 4th International Workshop on Human Leucocyte Differentiation Antigens in Vienna, Austria, in 1989.⁶

REAGENTS

IOtest CD69-ECD Conjugated Antibodies
PN 6607110 - 100 tests - 10 μ L/test

CLONE: TP1-55-3

ISOTYPE: IgG2b

IMMUNOGEN: Activated Human Peripheral Blood Lymphocytes

HYBRIDOMA: P3-X63-AG.8653 x BALB/c

SOURCE: Ascites fluid

PURIFICATION: Ion exchange or affinity chromatography

CONJUGATION: ECD is conjugated at a Molar Ratio ECD/Ig : 0.5-1.5
Excitation wavelength at 486-575 nm
Emission wavelength at 610-635 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. 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. Use Good Laboratory Practices (GLP) when handling reagent.
7. Harmful if swallowed.
8. After contact with skin, wash immediately with plenty of water.

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.

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.

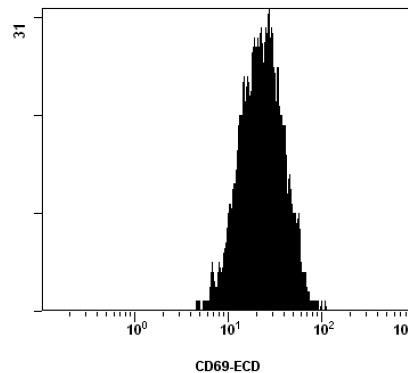
PROCEDURE

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

EXAMPLE DATA

The histogram shown is a monoparametric representation (Count versus Fluorescence Intensity) of an activated normal whole blood sample stained with CD69-ECD monoclonal antibody (PN 6607110) and gated on lymphocytes.

Figure 1:
Acquisition with a COULTER® EPICS® XL™/XL-MCL™ flow cytometer. Analysis with EXPO™32 ADC software.



SELECTED RESEARCH REFERENCES

1. Lopez-Cabrera, M., Santis, A.G., Fernandez-Ruiz, E., Sanchez-Mateos, P., Sanchez-Madrid, F., "The human earliest lymphocyte activation AIM/CD69 is a new member of the C-type animal lectin superfamily", 1995, Leucocyte Typing V - White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1126-1129.
2. Testi, R., d'Ambrosio, D., de Maria, R., Santoni, A., "The CD69 receptor: A multipurpose cell surface trigger for hematopoietic cells", 1994, Immunol. Today 10, 15, 479-483.
3. Cebrian, M., Yagüe, E., Rincon, M., Lopez-Botet, M., de Landazuri, M.O., Sanchez-Madrid, F. "Triggering of T-cell proliferation through AIM, an activation inducer molecule expressed on activated human lymphocytes", 1988, J. Exp. Med - 168 - 1621-1637.
4. Borrego, F., Galiani, M.D., Garcia-Cozar, F., Madueno, J.A., Perez-Bermejo, L., Santamaria, M., Pena, J., Solena, R., "CD69 Expression and function on NK cells", 1995, Leucocyte Typing V - White Cell Differentiation Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1427-1430.

5. Testi, R., d'Ambrosio, D., de Maria, R., Santoni, A., "CD69 is expressed on platelets and mediates platelet aggregation", 1994.
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TRADEMARKS

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