



Dendritic Cell Exclusion Kit

BACKGROUND

Dendritic cells constitute a heterogeneous group of cells which play a crucial role in the immune system since they represent the most potent professional antigen-presenting cells for the initiation of immune responses. This is related to their widespread localization in all sites of antigen entry, their high expression of immunomodulatory molecules necessary for T cell activation, and their production of cytokines.

In recent years there has been an increasingly high interest on the study of dendritic cells, particularly due to their possible application in immunotherapy. Accordingly, the ability of dendritic cells to stimulate primary T lymphocyte and T cell-dependent immune responses may provide opportunities for therapeutic intervention in bone marrow and solid organ transplantation, as well as in autoimmune diseases. In addition, protocols for clinical immunotherapy programmes, targeted on malignant cell antigens or infectious agents, have been designed to exploit dendritic cells as a natural adjuvant for optimal therapeutic vaccination.

Dendritic cells can be identified in human peripheral blood as the fraction of nucleated cells which do not show reactivity for CD3, CD19, CD56 and CD14 antigens and which at the same time are positive for HLA-DR. At flow cytometry these cells display a typical light scatter pattern, with FSC/SSC intermediate values between lymphocytes and monocytes.

USE

Add 20 µl of MAB / 100 µl of whole blood. Mix gently and incubate for 10 minutes at room temperature 20°C in dark.

Add 2 µl of Lysing solution Quick Lyse™ (Cat. No. QL250) in each tube. Mix and cover the tubes with Parafilm, and left them in the dark during 10 minutes at room temperature. It is recommended maintain the tubes in horizontal and shake from time to time during incubation time.

Read in a flow cytometer in the following three hours after their preparation. When the samples are not going to be read immediately after their preparation, it is recommended maintain the samples at 4°C in the dark until their processed.

ORDERING INFORMATION

CATALOG NUMBER
X1214K

SIZE
50 Tests

STORAGE CUSTOMER
Product should be stored at 4-8 degrees
C. DO NOT FREEZE

STABILITY
Products are stable for one year from
purchase when stored properly

SHIP CONDITIONS
Ship ambient temperature, do not freeze,
refrigerate upon arrival

COMPONENTS
CD3-FITC conjugate (IgG2a)
CD19-FITC conjugate (IgG1)
CD56-FITC conjugate (IgG2b)
CD14-FITC conjugate (IgG2a)

FORMULATION
Provided in phosphate buffered saline
solution containing 0.2% BSA and 0.1%
sodium azide as a preservative

For research use only. Not for use in human diagnostics or therapeutics.

Exalpha Biologicals, Inc. 86 Rosedale Road Watertown, MA 02472
Tel: 800.395.1137 Fax: 866.924.5100 www.exalpha.com info@exalpha.com

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COMMENTS

Combination of monoclonal antibodies directed against T-lymphocytes (CD3), B-Lymphocytes (CD19), natural killer (CD56) and monocytes (CD14) all conjugated with FITC. Peripheral blood dendritic cells can be distinguished from other leucocytes by their characteristic lack of staining with this combination.

REFERENCES

1. Almeida, J., et al. "Extensive characterization of the immunophenotype and pattern of cytokine production by distinct subpopulations of normal human peripheral blood MHC II+/lineage- cells." Clin. Exp. Immunol. 1999, 118, 392-401

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