

Duke File (IDF) Number

IDF #:T-000747

Meet the Inventors

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Department

Immunology

A murine monoclonal antibody for human myeloid cells (9E1 DU-HL60-3)

Value Proposition

The development of technology to produce monoclonal antibodies for the immunological detection of cell membrane antigens has been extensively applied to the identification of human lymphocyte cell surface antigens. Monoclonal antibodies reactive with myeloid precursor cells in the bone marrow or cells undergoing early myeloid differentiation are capable of detecting antigens that may then appear at discrete stages of myeloid maturation or on cells from some patients with myeloid and/ or monocytic leukemia. These antigens can thus be especially useful for the classification of leukemias and as a marker of myeloid cell differentiation.

Technology

This invention is a murine monoclonal antibody used to detect cell membrane antigens specific for human myeloid cells. Generated to the HL60 promyelocytic cell line, it can react with all hematopoietic myeloid cells, granulocytes and normal monocytes, as well as leukemic cells from some patients with AML, AMML, and ALL.

Advantages

- This antibody has been shown to react with peripheral blood monocytes and granulocytes but not with B or T cells
- Antibody has been verified using immunofluorescence
- Antibody specificity has been tested using Leukemic cells obtained from separated blood and bone marrow of patients
- Experiments using this clone could prove valuable in both research and potential diagnostic realms

