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[54] **MONOCLONAL ANTIBODIES AGAINST CHICKEN T-LYMPHOCYTES**

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[58] **Field of Search** 530/387, 388.75; 435/7.24, 70.21, 172.2, 240.27

[56] **References Cited**

PUBLICATIONS

Hyun S. Lillihoj, "Production and Flow Cytometric Analysis of Monoclonal Antibodies Reactive with Subpopulations of Chicken Lymphocytes," *In* Avian Immunology, pp. 87–97, Alan R. Liss, Inc. (1987).

Marion M. Chan et al., "Identification of the Avian Homologues of Mammalian CD4 and CD8 Antigens," J. Immunol. 140: 2133–2138 (1988).

Elizabeth Houssaint et al., "Tissue Distribution and Ontogenic Appearance of a Chicken T Lymphocyte Differentiation Marker," Eur. J. Immunol. 15: 305–308 (1985).

K. Hala et al., "3. A Monoclonal Antibody Reacting with a Membrane Determinant Associated with T Cell Activation in the Chicken," J. Immunobiol. 168: 2 (1985) (Abstract).

Chen-lo H. Chen et al., "Chicken Thymocyte-Specific Antigen Identified by Monoclonal Antibodies: Ontogeny, Tissue Distribution, and Biochemical Characterization," Eur. J. Immunol. 14: 385–391 (1984).

J. Richard Pink et al. "Monoclonal Antibodies Against Chicken Lymphocyte Surface Antigens," Hybridoma 2: 287–296 (1983).

Vernon T. Oi et al., "Immunoglobulin-Producing Hybrid Cell Lines," *In* Selected Methods in Cellular Immunlogy, B. B. Mishell and S. M. Shiigi (eds.), pp. 351–372 (1980).

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[57] **ABSTRACT**

Seven murine hybridoma cell lines capable of secreting monoclonal antibodies that can identify subpopulations of chicken lymphocytes have been developed. Precursor cytotoxic and suppressor T lymphocytes, precursor helper lymphocytes, and mature T lymphocytes may be distinguished by use of these antibodies.

4 Claims, No Drawings