

*Methods in Enzymology*

*Volume 121*

*Immunochemical Techniques*

*Part I*

*Hybridoma Technology and  
Monoclonal Antibodies*

EDITED BY

*John J. Langone*

*Helen Van Vunakis*

*Methods in Enzymology*

*Volume 121*

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## Preface

Since hybridoma technology for the purpose of eliciting monoclonal antibodies of predefined specificity was introduced by Köhler and Milstein in 1975, it has become a mainstay in most laboratories that utilize immunochemical techniques to study problems in basic, applied, or clinical research. In simplest terms, the steps leading to the production of hybridomas and their monoclonal antibody products suitable for a specific purpose remain the same: immunization, cell fusion, cell growth and cloning, propagation of stable hybridomas, and screening for antibody specificity and functional activity. The process is labor intensive and several months may be required before appropriate cell lines are obtained and monoclonal antibodies are fully characterized. It is not surprising that the widespread use of monoclonal antibodies has led to the rapid development of new techniques to improve the efficiency, sensitivity, and simplicity of the individual steps.

This volume is divided into three sections that cover the various aspects of producing and maintaining hybridomas as well as of detecting, characterizing, and utilizing monoclonal antibodies. It is not possible to cover every development in methodology. Therefore, we have included established techniques as well as selected newly developed approaches that we feel would be especially useful because of their general applicability. We have also included a list of articles from other volumes of *Methods in Enzymology* which are relevant to topics covered in this volume. We have cross-referenced these articles for the convenience of the reader and to avoid unwarranted duplication. As the field of hybridoma technology undergoes further development, publication of supplemental volumes will be considered.

We are grateful for the sound advice and constructive suggestions from Nathan Kaplan and Sidney Colowick during the preparation of this volume. The recent passing of Sidney Colowick has saddened his many friends and colleagues. He will always be remembered for his significant scientific contributions, his wise counsel, and his gentle humor.

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