
Preface

Since the advent of hybridoma technology more than two decades ago, numerous antibodies have entered the clinical setting as potent therapeutic agents. Their repeated application in humans, however, is limited by the development of human antimouse antibodies (HAMA) in the recipient, leading to allergic reactions against the foreign murine protein and rapid neutralization. To circumvent these limitations many new antibodies have recently been tailored through recombinant antibody technology. The initial clinical data show encouraging results, thus demonstrating the potential of these new therapeutic agents.

The purpose of *Recombinant Antibodies for Cancer Therapy* is to present a collection of detailed protocols in recombinant antibody technology. It is primarily addressed to scientists working on recombinant antibodies as well as clinicians involved with antibody-based therapies. As with other volumes of this series, we placed the main focus on providing detailed protocols describing procedures step-by-step. Moreover, each protocol supplies a troubleshooting guide containing detailed information on possible problems and hints for potential solutions.

Antibody technology is a subject of constant and rapid change. This volume, therefore, does not attempt to cover all possible current experimental approaches in the field. Rather, we present carefully selected protocols, written by competent authors who have successfully verified the particular method described. Given our own professional backgrounds and interest in oncology, we chose to concentrate chiefly on therapeutic agents for cancer patients.

Recombinant Antibodies for Cancer Therapy: Methods and Protocols consists of five sections. First, concise reviews give an overview of the current status of recombinant antibodies in cancer therapy, and the generation of antibody molecules through antibody engineering. This is followed by protocols grouped according to subject into four sections: Hybridoma-Derived Recombinant Antibodies, Recombinant Antibody Fragments from Phagemid-Displayed Antibody Repertoires, Antibody Fragments with Additional Properties, and Large Scale Production of Recombinant Antibodies for Clinical Applications.

We would like to commend all contributing authors for the high quality and clarity of their respective manuscripts. We thank them for sharing their extensive experience in dealing with intricate experimental problems. Moreover, we are

indebted to Prof. John Walker for his enthusiasm and encouragement, and Humana Press for publishing this volume. On a more personal level we are grateful to Mona, Lisa, Joshua, and Michaela for their patience and support.

Martin Welschhof
Jürgen Krauss

Recombinant Antibodies for Cancer Therapy

Methods and Protocols

Welschof, M.; Krauss, J. (Eds.)

2003, XIV, 481 p., Hardcover

ISBN: 978-0-89603-918-6

A product of Humana Press