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Review Article

The Autoimmune Diseases Manifested by Production of Autoantibodies: The Autoantigens Identified by Random Peptide Library

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Abstract:

Phage-displayed random peptide libraries (RPL) provide a powerful technique for identification, structural and functional analysis of ligands for many different target molecules, including, antibodies, receptors or other proteins. This strategy has been verified to be an effective tool for research in immunology and successfully has been used to determine the target sequence for monoclonal and polyclonal antibodies. The peptide library approach provides great promise for characterization of ligands with no prior information concerning antibody specificity. This would allow the recognition of candidate antigens involved in initiation or perpetuation of autoimmune diseases. This technology also offers the potential for new therapeutic opportunities, production of diagnostic reagents, or even development of effective new vaccines. This review focuses on studies regarding the identification of autoantigens recognized by antibodies in autoimmune diseases using phage-display peptide libraries.

Keywords:

Autoantigens ، Autoimmune diseases ، Random peptide library

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