

# METHODS IN MOLECULAR BIOLOGY

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# Plant Pattern Recognition Receptors

## Methods and Protocols

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 **Humana Press**

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## **Preface**

Sessile plants are under a constant risk of infections by different microorganisms in their natural habitats. The first line of immune response is activated via sensing of the conserved signatures from different microbial species, which are termed as pathogen- or microbe-associated molecular patterns (PAMPs or MAMPs), by cell surface-resident pattern recognition receptors (PRRs). MAMPs were originally named as microbial elicitors which have long been observed to trigger various cellular responses in plants. In recent years, remarkable progresses have been made on the research of their corresponding receptors, signaling mechanism, and involvement in disease resistance. Plant PRRs are often members of receptor-like kinases (RLKs) and receptor-like proteins (RLPs), which mediate PAMP- or MAMP-triggered immunity (PTI or MTI) contributing to host resistance against a broad spectrum of microbial infections.

This book volume will cover a collection of step-by-step protocols on techniques ranging from MAMP isolations from diverse microorganisms, PRR identifications from different plant species, MAMP-PRR binding, and a series of signaling responses and events revealed by various biochemical, cellular, genetic, and bioinformatic tools.

*College Station, TX, USA*

*Libo Shan  
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