Virus-Induced Gene Silencing: Methods and Protocols (Methods in Molecular Biology)

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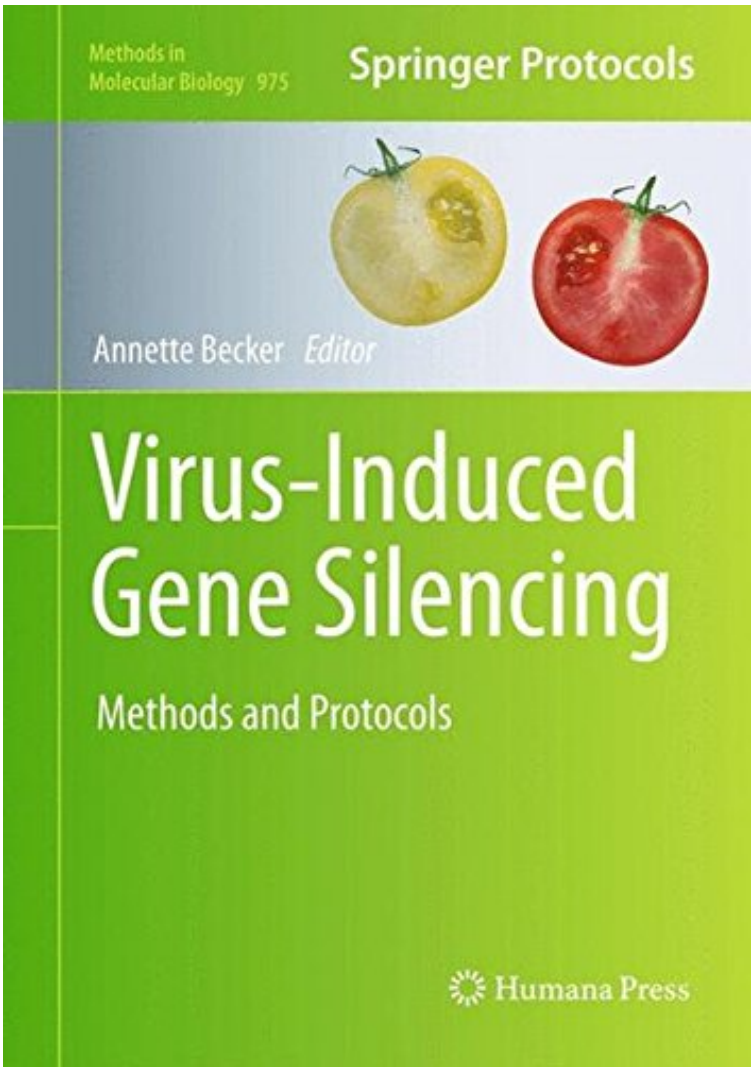

#7567176 in Books Humana Press 2013-02-06Original language:EnglishPDF # 1 10.00 x .80 x 7.00l, 1.30 #File Name: 1627032770221 pages | File size: 56.Mb

From Brand: Humana Press : Virus-Induced Gene Silencing: Methods and Protocols (Methods in Molecular Biology) before purchasing it in order to gage whether or not it would be worth my time, and all praised Virus-Induced Gene Silencing: Methods and Protocols (Methods in Molecular Biology):

Plants are amazing organisms to study, some are important sources for pharmaceuticals, and others can help to elucidate molecular mechanisms required for a plants development and its interactions with the biotic or abiotic

environment. Functional genomics is vastly lagging behind the speed of genome sequencing as high-throughput gene function assays are difficult to design, specifically for non-model plants. Bioinformatics tools are useful for gene identification and annotation but are of limited value for predictions concerning gene functions as gene functions are uncovered best by experimental approaches. Virus-Induced-Gene-Silencing (VIGS) is an easy to use, fast, and reliable method to achieve down regulation of target gene expression. Virus-Induced Gene Silencing: Methods and Protocols provides detailed protocols for VIGS experiments in several plant species including model and non-model plants. Also included in this book are recently developed protocols for VIGS-derived microRNA production in the plant or protein over expression, as well as chapters devoted to summarizing the molecular mechanisms of VIGS action and the vector systems developed so far. Written in the successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible protocols, and notes on troubleshooting and avoiding known pitfalls. Authoritative and easily accessible, Virus-Induced Gene Silencing: Methods and Protocols serves as a valuable resource for researchers from diverse fields of plant biology interested in experimental approaches to analyzing gene functions.

From the Back CoverPlants are amazing organisms to study, some are important sources for pharmaceuticals, and others can help to elucidate molecular mechanisms required for a plants development and its interactions with the biotic or abiotic environment. Functional genomics is vastly lagging behind the speed of genome sequencing as high-throughput gene function assays are difficult to design, specifically for non-model plants. Bioinformatics tools are useful for gene identification and annotation but are of limited value for predictions concerning gene functions as gene functions are uncovered best by experimental approaches. Virus-Induced-Gene-Silencing (VIGS) is an easy to use, fast, and reliable method to achieve down regulation of target gene expression. Virus-Induced Gene Silencing: Methods and Protocols provides detailed protocols for VIGS experiments in several plant species including model and non-model plants. Also included in this book are recently developed protocols for VIGS-derived microRNA production in the plant or protein over expression, as well as chapters devoted to summarizing the molecular mechanisms of VIGS action and the vector systems developed so far. Written in the successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible protocols, and notes on troubleshooting and avoiding known pitfalls.Authoritative and easily accessible, Virus-Induced Gene Silencing: Methods and Protocols serves as a valuable resource for researchers from diverse fields of plant biology interested in experimental approaches to analyzing gene functions.