GTPases: Versatile Regulators of Signal Transduction in Plants

By Girdhar K. Pandey, Manisha Sharma, Amita Pandey, Thiruvenkadam Shanmugam

Springer International Publishing AG. Paperback. Book Condition: new. BRAND NEW, GTPases: Versatile Regulators of Signal Transduction in Plants, Girdhar K. Pandey, Manisha Sharma, Amita Pandey, Thiruvenkadam Shanmugam, G proteins are the key regulators for a wide range of cellular processes in animals and plants. In comparison to animals and yeast, plants have a single Rho-GTPase subfamily called Rho-like GTPases (ROPs). The ROP family of monomeric GTPases has emerged as a versatile and key regulator in plant signal transduction processes. During the past few years' studies on plant RHO-type (ROP) GTPase have generated new insights into their role in diverse processes ranging from cytoskeletal organization, polar growth, development to stress and hormonal responses. Studies have shown that plants have evolved specific regulators and effector molecules. ROP GTPases possess the ability to interact with these multiple regulator and effector molecules that ultimately determines their signaling specificity. Recently, genome wide studies in plants have shown that the Arabidopsis genome encodes 93, and rice has nearly 85 small GTPase homologs. And we have been able to identify four new homologs in the rice genome. Here, we focus on the complete phylogenetic, domain, structural and expression analysis during stress and various developmental processes of small...

READ ONLINE
[1.37 MB]

Reviews

Extensive guideline! Its this sort of excellent read. it had been writtern quite properly and helpful. You can expect to like just how the writer create this book.
-- Mr. Gustave Gerhold

This book will never be straightforward to start on reading through but quite enjoyable to learn. Better then never, though i am quite late in start reading this one. Your lifestyle span will probably be convert once you complete reading this publication.
-- Dr. Kadin Hane DVM