

IDENTIFICATION OF EARLY TRANSDUCTION ELEMENTS INVOLVED IN OLIGOGALACTURONIDE SIGNALLING

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Alpha 1-4-linked oligogalacturonides (OGs) derived from plant cell walls function as damage-associated molecular patterns (DAMPs) and activate the plant immune response. OGs also regulate developmental responses, likely due to their ability to antagonize auxin. So far, little is known about the intracellular elements involved in the early events triggered by OGs. One of the objectives of our work is to identify Arabidopsis Mitogen-Activated Protein kinase kinase kinases (MAPKKKs) involved in the signal transduction cascade activated by OG. Here we describe a MAPKKK mutant defective in both early and late responses to OGs. Notably, responses to microbe-associated molecular patterns (MAMPs), such as elf18 and chitin, are not affected in these mutants. These results suggest the presence of two different and convergent signalling pathways in response to DAMPs and MAMPs in Arabidopsis.