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ROLE OF MAP KINASES IN THE ACTIVATION OF *ARABIDOPSIS* DEFENSE RESPONSES TRIGGERED BY ELICITORS

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Mitogen-activated protein kinases (MAPKs) are fundamental components of the plant innate immune system. MPK3 and MPK6 are Arabidopsis (*Arabidopsis thaliana*) MAPKs activated by pathogens and elicitors such as oligogalacturonides (OGs), which function as damage-associated molecular patterns (DAMPs), and flg22, a well-known microbe-associated molecular pattern (MAMP). However, the specific contribution of different MAPKs to the regulation of elicitor-induced defense responses is not completely defined. We have investigated the roles played by MPK3 and MPK6 in elicitor-induced resistance against the fungal pathogen *Botrytis cinerea*. Analysis of single *mapk* mutants revealed that lack of MPK3 increases basal susceptibility to the fungus but does not significantly affect elicitor-induced resistance. Instead, lack of MPK6 has no effect on basal resistance but completely suppresses elicitor-induced resistance to *B. cinerea*. Interestingly, MPK3 and MPK6 are not required for the oxidative burst induced by elicitors, indicating that this response is not regulated by MAPKs. Overexpression of AP2C1, a MAPK phosphatase, leads to impaired elicitor-induced phosphorylation of both MPK3 and MPK6, and a to a phenotype that recapitulates that of the single *mapk* mutants. These data indicate that OG- and flg22-induced defense responses effective against *B. cinerea* are mainly dependent on MAPKs, with a greater contribution of MPK6.