Interaksi Atmek1-Exgt pada Arabidopsis Thaliana pada Saat Terjadi Pelukaan

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Abstrak

Interaction of AtMEK1-EXGT in Arabidopsis thaliana after Wounding. Toto Hadiarto and Fumio Nanba. Protein interactions occur within cellular level of stimulated plant cells to relay signals from receptors to production of re- sponse. AtMEK1-EXGT interaction had been detected in non- treated Arabidopsis. In this research, interaction between AtMEK1, a mitogen-activated protein kinase kinase of Arabidopsis thaliana, and EXGT, endoxyloglucan trans- ferase, after the plant was wounded was examined using co-immunoprecipitation and in vitro phosphorylation assay. The results demonstrated that EXGT interact with AtMEK1 soon after and 10 minutes after wounding. In addition, AtMEK1 phosphorylation activity increased when increased level of EXGT was incorporated into the reaction mixture. These indicate that EXGT amplifies wound-caused phos- phorylation activity of AtMEK1. The results elucidate part of the AtMEKK1-AtMEK1-AtMPK4 cascade which is stimulated by wounding. How the complex interaction between EXGT, AtMEK1 and AtMPK4 fits within the cascade is remained to be uncovered.