

An elicitor chitosan (CHT) induces stomatal closure but the mechanism remains to be clarified. A phytohormone salicylic acid (SA) is crucial for elicitor-induced defense signaling in plants. Here we investigated whether endogenous SA is required for CHT signaling in guard cells. In the SA-deficient *nahG* mutant, treatment of CHT did not induce either apoplastic reactive oxygen species (ROS) production or stomatal closure but co-treatment of CHT and SA induced both apoplastic ROS production and stomatal closure, indicating the involvement of endogenous SA in CHT-induced apoplastic ROS production and CHT-induced stomatal closure. Furthermore, CHT induced transient cytosolic free calcium concentration increments in the *nahG* mutant in the presence of exogenous SA but not in the absence of exogenous SA. These results provide evidence that endogenous SA is a crucial element in CHT-induced stomatal closure.

