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[\[PDF \(772K\)\]](#) [\[References\]](#)**Elicitor-responses in rice cells are differentially potentiated by plant defense activators**H. IYOZUMI¹⁾, K. KATO¹⁾, C. KAGEYAMA¹⁾, H. INAGAKI¹⁾, K. FURUSE²⁾, K. BABA³⁾ and H. TSUCHIYA⁴⁾

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ABSTRACT

We examined the priming effects of four plant defense activators (probenazole [PBZ], methyl jasmonate [MeJA], acibenzolar-S-methyl [ASM], and carpropamid [CRP]) in rice cells. Activators potentiated the elicitor-responsive expression of *Cht-1* gene by 4- to 7-fold. MeJA greatly activated *PBZI* and *Os PAL1* gene expression by over 50-fold, and CRP also enhanced *PBZI* gene expression to the same degree. On the other hand, activators accelerated the elicitor-responsive photon emission and augmented its peak intensity by 2- to 3-fold. These results indicated that each elicitor response was potentiated by plant defense activators in different but overlapping manners. Among elicitor responses, photon emission can be a useful marker for priming because of its sensitivity to various kinds of activators and a simple strategy for its estimation.

Key words: plant defense activator, priming, elicitor-responsive photon emission, *Oryza sativa*

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