

일반학술발표(포스터) 초록

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Elicitation of Seedlings and Cultured Cells for the Production of Capsidiol in *Capsicum annuum* L.

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Effects of ultraviolet stress and elicitors, cellulase and jasmonic acid, for the production of capsidiol, sesquiterpenoid phytoalexin, from seedlings and suspension cultures of pepper (*Capsicum annuum* L. cv. *Soobicho*) were examined. Extracellular capsidiol in the medium of suspension cultures was absent from control cells, but accumulated in the elicitor-induced cells treated with 0.05 $\mu\text{g/mL}$ cellulase or 0.1 $\mu\text{g/mL}$ jasmonic acid. Capsidiol production in the leaves of pepper seedling was markedly increased by the treatment of ultraviolet stress and reached maximum level at 48 hours of irradiation. Infiltration of elicitors, 0.05 $\mu\text{g/mL}$ cellulase or 1.0 $\mu\text{g/mL}$ jasmonic acid, to the surface of leaf or fruit, stimulated the elicitation of the cells which resulted in the production of capsidiol and expansion of pathogene-like lesion around the elicitor treated region.

Key words: Cellulase, elicitor, jasmonic acid, sesquiterpenoid phytoalexin

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