

흰나리 인편으로부터 PR-Proteinase의 유도 및 특성 규명

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Some morphological characters were surveyed and PR-proteinases were induced and characterized from *Lilium formosanum* Wallace endemic to Cheju island. Its flower characters were similar to those of white trumpet lilies(*Lilium longiflorum* Thunb.) although its flowering period was later than that of white trumpet lilies and it had a wide range of variation among individuals. Six PR-proteinases(II-2, III-1, III-2, IV-1, IV-2 and V) were induced from bulbs by 2.5 mM salicylic acid and almost excreted into the intercellular spaces.. These PR-proteinases were strongly activated by Ca²⁺, whereas they were strongly inhibited by Cu²⁺, Co²⁺ and Fe²⁺. Three PR-proteinases(II-2, IV-1 and IV-2) were strongly inhibited by 1,10-phenanthroline, indicating that these enzymes are metallo-proteinases. Three PR-proteinases(III-1, III-2 and V) had a high sensitivity to PMSF and required β -mercaptoethanol for their activities. These results indicat that these proteinases are cysteine proteinases.