Supplementary Information

Hydrogel-extraction technique for non-invasive detection of blue fluorescent substances in plant leaves

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Supplementary Information

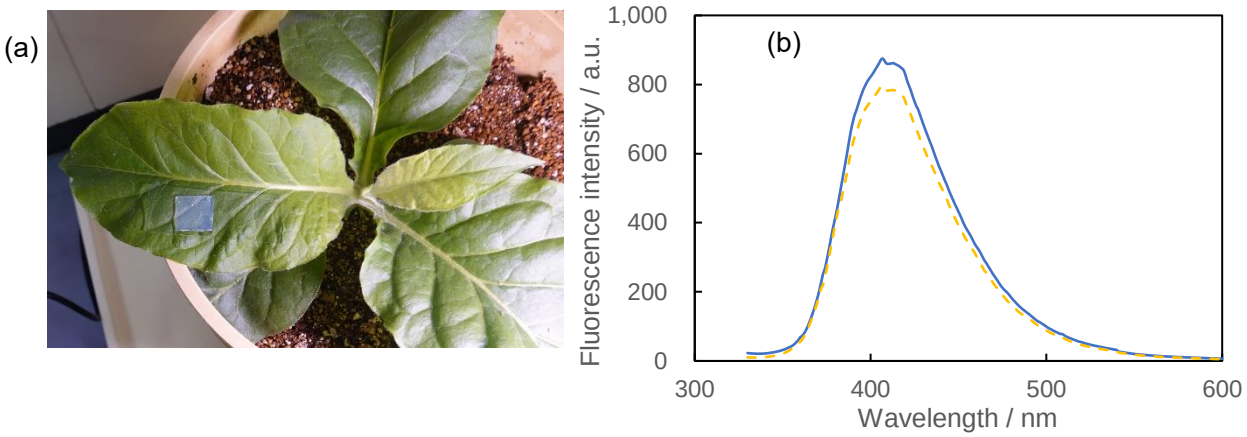

Figure S1. (a) Photograph of hydrogel extraction: a hydrogel film extracting salicylic acid from a tobacco leaf. (b) Fluorescence spectra of a hydrogel film after its placement on a tobacco leaf for 3 h (blue line). Three hundred mL of 7 mmol/L salicylic acid solution was poured over the soil 24 h before the extraction. Fluorescence spectra of a hydrogel film containing 0.2 mmol/L salicylic acid aqueous solution (yellow dashed line). Fluorescence emissions were obtained using UV light (Xenon lamp, 310 nm).

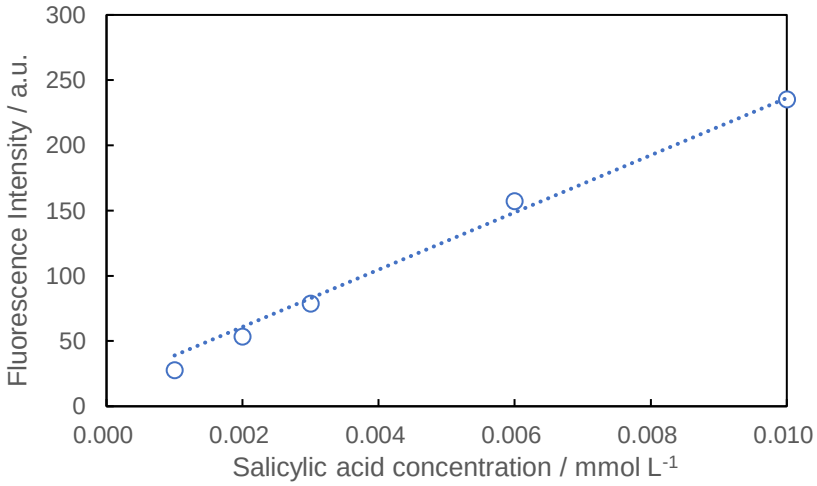

Figure S2. Calibration curve: fluorescence intensity at 410 nm depending on salicylic acid concentration in methanol solution. Fluorescence emissions were excited by UV light (Xenon lamp, 310 nm).

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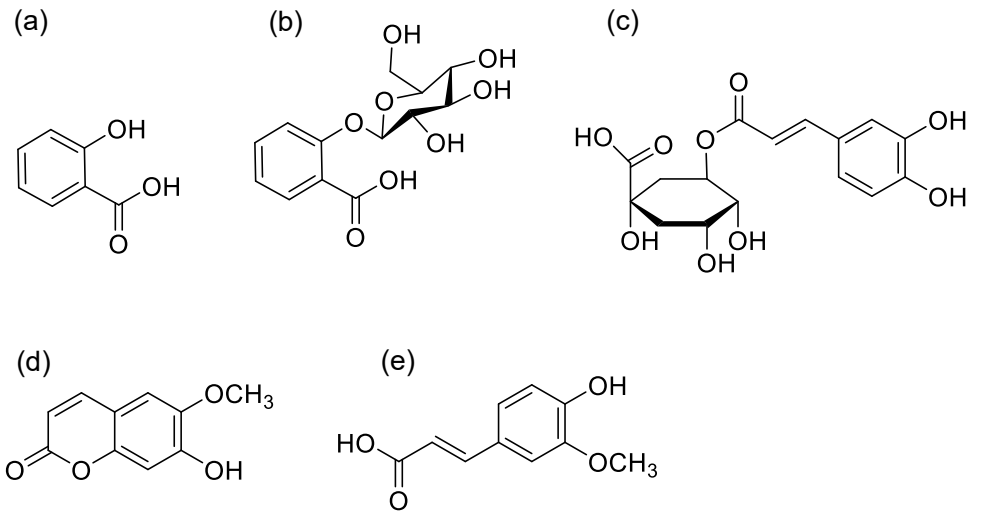

Figure S3. Chemical structures of (a) salicylic acid, (b) salicylic acid 2-O-β-D-glucoside (SAG), (c) chlorogenic acid, (d) scopoletin, and (e) ferulic acid.

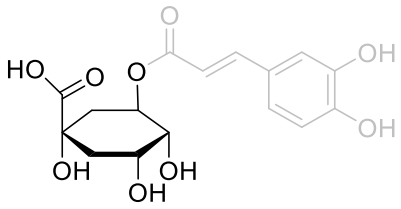

Figure S4. Fragment of chlorogenic acid.