

Supplementary Material

A Highly Sensitive Caffeic Acid Fluorescent Probe for Detecting Laccase in Grape Juice and Mushrooms

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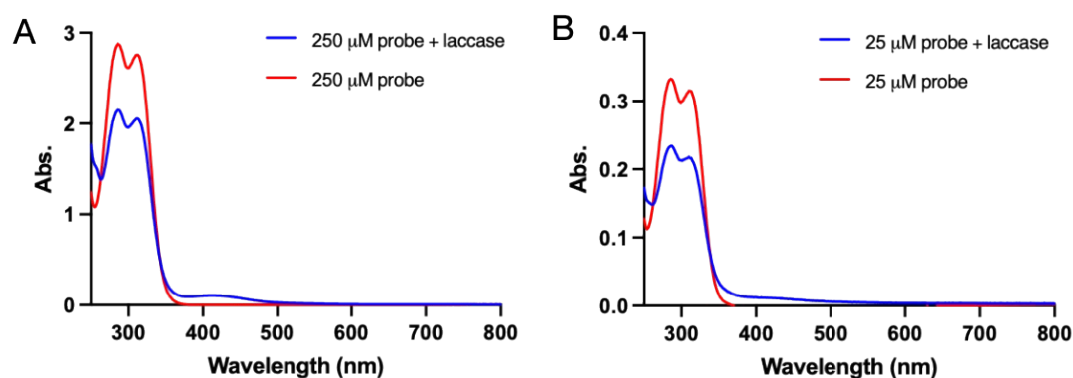


Fig. S1 Full absorption spectra of 250 μM EC (A) and 25 μM EC (B) with or without laccase (2.5 $\mu\text{g}/\text{mL}$ or 0.25 $\mu\text{g}/\text{mL}$) in 20 mM phosphate buffer (pH 7.4) at 25 $^{\circ}\text{C}$.

Ref	$\lambda_{\text{ex/em}}$ (nm)	Linearity	pH	Detection limit	Application
(1) ¹	530/583	5.62 - 702 U/L	5.5	1.76 U/L	Soil Samples
(2) ²	330/458	0 - 100 $\mu\text{g}/\text{mL}$	6.0	0.47 $\mu\text{g}/\text{mL}$	Conformational Flexibility of Laccase
(3) ³	650/680	10 - 32 $\mu\text{g}/\text{mL}$	3.0	9 U/L	Mushroom Extracts
(4) ⁴	330/466	0 - 400 U/L	6.0	2.0 U/L	Human Serum Samples
(5) ⁵	530	100–10000 U/L	6.0	---	---
	(absorbance)				
EC	395/470	0-5 $\mu\text{g}/\text{mL}$	7.4	0.24 $\mu\text{g}/\text{mL}$	Grape Juice and Mushrooms

Table S1. Comparison of EC with other reported laccase sensors.

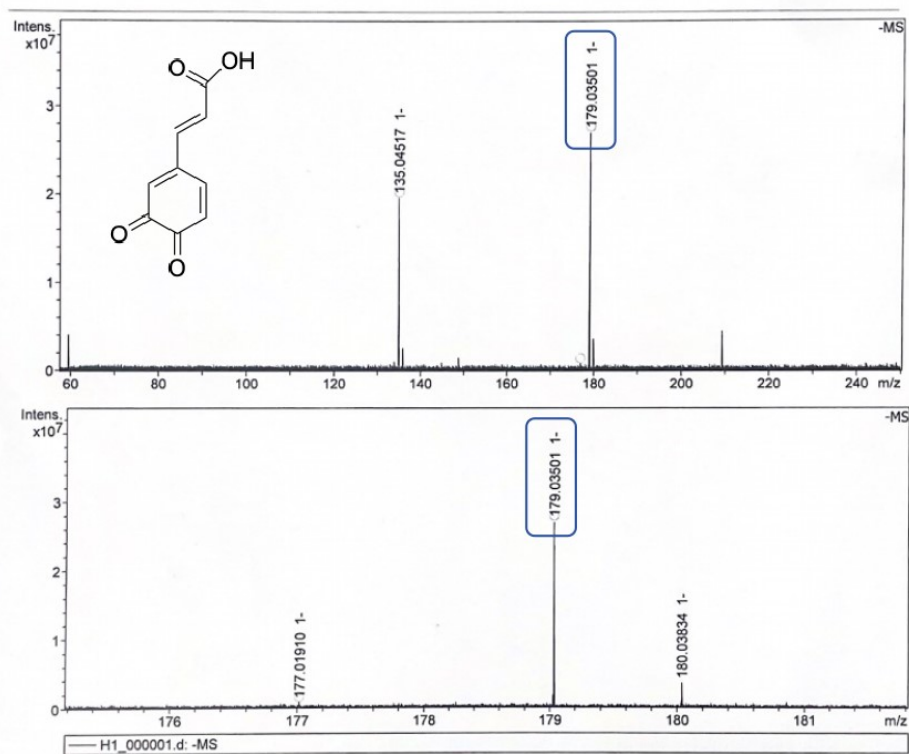


Fig. S2 HR-MS data of the product of the reaction between EC and laccase. HR-ESI-MS: m/z calcd. (C₉H₆O₄, [M]⁺), 179.0300; found, 179.0350.

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