

# A Rapid, Fluorescence Switch-On Biosensor for Early Diagnosis of Sorghum Mosaic Virus

Zhenlong Han <sup>1</sup>, Congyuan Yang <sup>1</sup>, Dan Xiao <sup>2</sup>, Yinfu Lin <sup>2</sup>, Ronghui Wen <sup>2</sup>, Baoshan Chen <sup>3,4</sup> and Xipu He <sup>1,4,\*</sup>

<sup>1</sup> School of Chemistry and Chemical Engineering, Guangxi University, Nanning 530004, China

<sup>2</sup> College of Life Science and Technology, Guangxi University, Nanning 530004, China

<sup>3</sup> College of Agriculture, Guangxi University, Nanning 530004, China

<sup>4</sup> Guangxi Key Laboratory of Sugarcane Biology, Guangxi University, Nanning 530004, China

\* Correspondence: hexipu@gxu.edu.cn

**Table S1.** Comparison of the developed biosensor with previously reported methods for pathogenic factor detection.

Target	Linear Range ( $\mu\text{M}$ )	LOD ( $\mu\text{M}$ )	Correlation Coefficient	Reference
Citrus tristeza virus	Not reported	$5.2 \times 10^{-3}$	0.98	[31]
Aflatoxin B1	$0.1 - 0.6 \times 10^{-3}$	$2 \times 10^{-5}$	Not reported	[33]
Ganoderma boninense	Not reported	$3.55 \times 10^{-3}$	0.935	[38]
Helicobacter pylori	0.01 – 0.2	$4.5 \times 10^{-3}$	Not reported	[27]
Infectious bursal disease virus	0 – 0.6	$3 \times 10^{-2}$	Not reported	[10]
Staphylococcus aureus	Not reported	$1 \times 10^{-3}$	Not reported	[39]
Sorghum mosaic virus	0.10 – 0.54	$4.4 \times 10^{-2}$	0.99	This work