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Electronic Supplementary Material

Enlargement of Gold Nanoparticles for Sensitive Immunochromatographic Diagnostics of Potato Brown Rot

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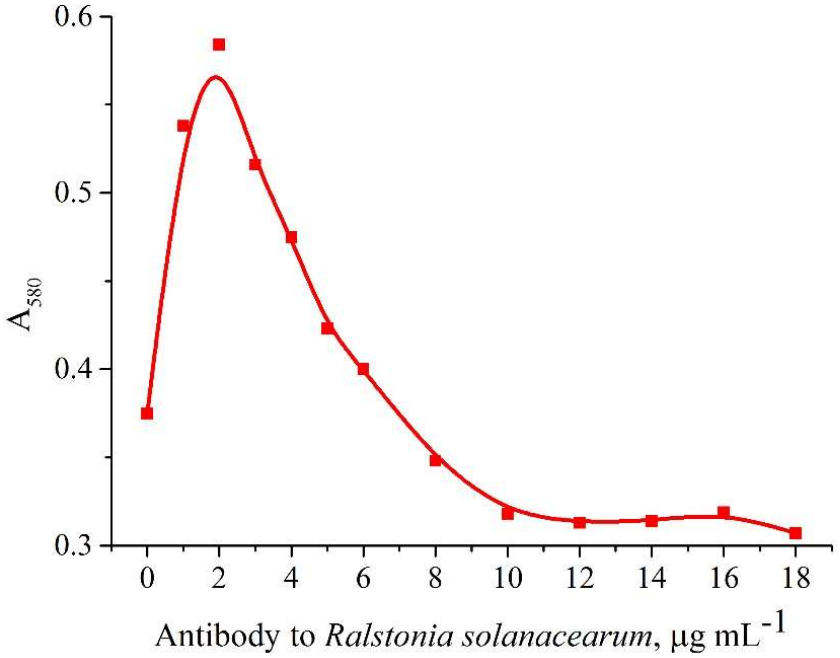
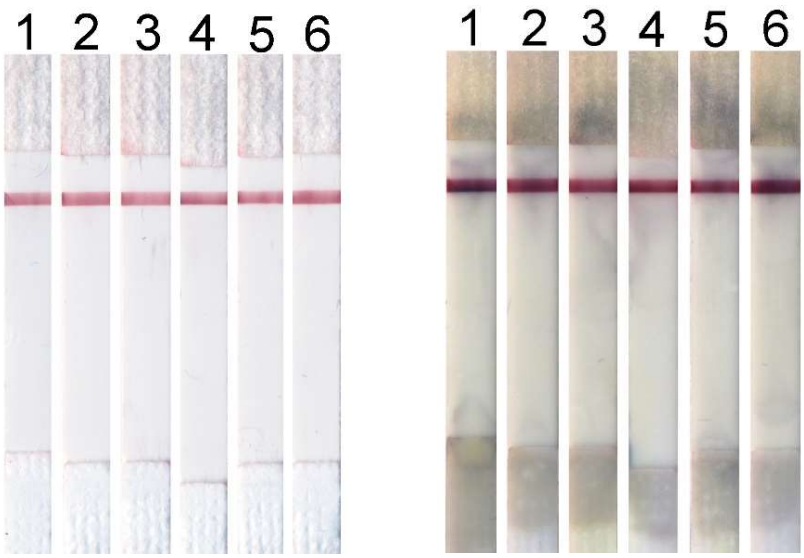


Figure S1. Flocculation curve for antibody to *Ralstonia solanacearum* and GNPs.



(**a**) (**b**)

Figure S2. LFIA of non-specific bacteria. (**a**) Test strips before enlargement. (**b**) Test strips after enlargement. 1−*Clavibacter michiganensis* subsp. *sepedonicus*, 2−*Pectobacterium carotovorum*, 3−*Dickeya* sp., 4−*Clavibacter michiganensis* subsp. *michiganensis*, 5−*Artrobacter castelli*, 6−*Pseudomonas syringae*.

Table S1. Comparison of GNP enlargement based methods for highly sensitive assays.

Assay	Analyte	Enlargement Strategy	LOD Decrease	Reference
LFIA	Deoxynivalenol fumonisin B1	Silver enhancement	2-fold 2.5-fold	[1]
LFIA	Prostate-specific antigen	Silver enhancement	3-fold	[2]
LFIA	Cadmium	Silver enhancement	4-fold	[3]
LFIA	*Escherichia coli* O157:H7	Gold enhancement	8-fold	[4]
Paper immunoassay	*E.* O157:H7 *Salmonella typhimurium*	Gold enhancement	10-fold	[5]
LFIA	Ochratoxin A	Silver enhancement	10-fold	[6]
LFIA	*Helicobacter pylori* antigens	Silver enhancement	10-fold	[7]
LFIA	Potato leafroll virus	Silver enhancement	15-fold	[8]
Dot-blot immunoassay	*Mycobacterium tuberculosis* antigen	Silver enhancement Copper enhancement	4-fold 17-fold	[9]
LFIA	Abrin-a	Silver enhancement	100-fold	[10]
LFIA	Avian influenza virus Newcastle disease virus	Gold enhancement	100-fold	[11]
Flow through immunoassay	Protein G	Gold enhancement	100-fold	[12]
LFIA	*Salmonella enteridis*	Gold enhancement	100-fold	[13]
3D paper based assay	Human norovirus	Gold enhancement	100-fold	[14]
LFIA	Potato virus X	Gold enhancement	240-fold	[15]

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