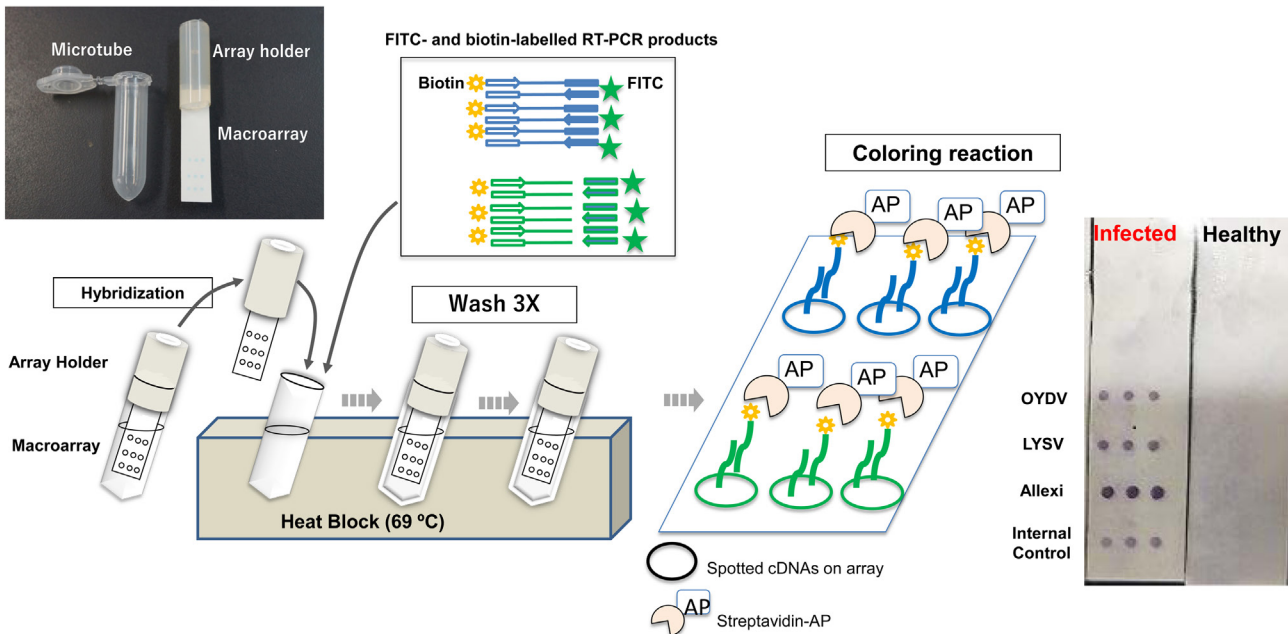


Supplementary Fig. 1. Steps for field diagnosis of garlic viruses. (A) The method can be done in the back of a van. (B) All the equipment needed. (C) RNA extraction (grinding garlic tissues by hand). (D) RNA extraction (RNA purification using a column). (E) RT-PCR using the miniPCR device. (F) Agarose gel electrophoresis using the blueGel device. (G) Simple light-shielded box for real-time observations by eye. (H) Image of FITC-labeled bands during electrophoresis. RT-PCR, reverse transcription polymerase chain reaction.

Device for microtube hybridization



Supplementary Fig. 2. Virus detection in the array assay. RT-PCR products are applied to a microarray membrane where the target virus cDNAs have been spotted. the RT-PCR products and the cDNAs are allowed to hybridize in microtubes as illustrated in the figure. Biotin-labeled PCR products that are hybridized and fixed on the membrane are then reacted with alkaline phosphatase (AP)-conjugated streptavidin. At the last step, the color is developed with the addition of the AP substrate; for the detail, see Shimura et al. (2015). RT-PCR, reverse transcription polymerase chain reaction.